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IN THIS THIRD VOLUME OF BINI GRAMMAR, THREE CHAPTERS ARE PRESENTED ON LEXEMICS--(1) LEXEMICS, (2) LEXEME GRADES, AND (3) LEXEME CLASSES. THE AUTHOR DEFINES THE TERM "LEXEME" AS A FORM INTERMEDIATE BETWEEN A MORPHEME AND A GRAMMEME. LESS TECHNICALLY, LEXEMES ARE DEFINED AS WORDS AND WORD-LIKE FORMS. THE OTHER TWO VOLUMES ON BINI GRAMMAR WERE ASSIGNED ACCESSION NUMBERS ED 003 870 AND ED 003 871. (JC)

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A BINI GRAMMAR

Part 3: Lexemics

by ROGER W. WESCOTT

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A BINI GRAMMAR PART 5 -- LEXEMICS

Part 3: Lexemics

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1963

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PREFACE TO VOLUME III

This third volume of A Bini Grammar was, like the two volumes preceding it, written under the terms of a National Defense Education Act contract with the United States Office of Education. The author is indebted to not only the Office of Education but also to New Haven College, in West Haven, Connecticut, which served as the sponsoring institution for the research that went into the volume and which provided the author with an office to facilitate that research.

In addition, the author wishes to acknowledge his personal indebtedness to Mr. Augustus Koski, Language Research Specialist at the Office of Education, for guidance and encouragement; and to President Marvin Peterson of New Haven College for acting as his research sponsor.

Since June, 1963, four new native speakers of Bini, all of whom are students at American institutions of higher learning, have assisted the author in his work on their language. These are, in the order in which they first worked on the Bini language project: Mr. Osagie Ayobahan of Howard University, Washington, D.C.; Mr. Abel Guobadia of the University of Pittsburgh, Pittsburgh, Pa.; Mr. Edward Isibor, of Howard University, Washington, D.C.; and Mr. Anthony Osagie of Springfield College, Springfield, Massachusetts. Without them, the production of this volume in its present form would have been an impossibility. The author can only hope that they have found their linguistic labors as rewarding as he has found them indispensable.

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October 11, 1963

CHAPTER 5: LEXEMICS

Lexemics is the study of lexemes. Although there is little agreement among linguists on the definition of the term "lexeme" (with the result that many scholars do not use it at all), it will here be defined by fiat as a form intermediate between a morpheme and a grammeme. Since morphemes are minimal forms, such as roots and affixes, while grammemes are maximal forms, ranging from phrases to discourses, lexemes of necessity comprise all forms not subsumed under the morphemic and grammemic rubrics.

Less technically, lexemes may be defined as words and word-like forms.

The criteria of lexemic status are, in order of structural importance:

1. inflection
2. continuous (i.e., gapless) replication
3. lexical intonation
4. lexical meaning

None of these criteria is absolute in the positive sense that all lexemes exhibit it. But each is absolute in the negative sense that no morpheme or grammeme exhibits it.

Inflection may be defined as paradigmatic affixation — that is, as affixation which alters the number or aspect of a form without altering the grammatical class or grade to which it belongs. Examples of lexeme paradigm are: *òmón*, "child", vis-a-vis *èmón*, "children"; and *ọ̀bá*, "he watches", vis-a-vis *ọ̀bá'è*, "he watched".

Replication is exact or approximate repetition of a form. The only non-lexemic form that can be replicated to produce a lexeme is a root. But all grades of lexemes except compounds can themselves be replicated to produce compound lexemes. Examples of the four major types of lexemic replication are these: a root replicated to produce a minor stem, as in *gogo*, "bell", from *go*, "shrill"; a minor stem replicated to produce a major stem, as in *gidigidi*, "hugely", from *gidi*, "huge"; a word replicated to produce a compound, as in *èbéèbé*, "foliage", from *èbé*, "leaf"; and a non-compound subphrase replicated to produce a compound subphrase, as in *ọ̀bà'ábā'á*, "it is extremely difficult", from *ọ̀bà'á*, "it is difficult".

Lexical intonation may be defined as arbitrary intonation or intonation which cannot be predicted on the basis of grammatical status alone. Thus, for example, there is no way of knowing in advance whether the noun *uwu* will exhibit the tone-pattern TT, TL, LT, or LL. In fact, as we have already seen, it has all four patterns — although each of the four is semantically (and therefore lexically) distinct from the others, *úwú* meaning "interior", *úwù*, "boundary", *ùwú*, "death", and *ùwù*, "chiefly tattoo".

Lexical meaning is meaning that is referential or synonymal rather than structural in nature. Thus, Bini *è̩gùarlè*, "palace", can be defined either by pointing to the Oba's residence or by equating it with the French word *palais*. In this regard the word *è̩gùarlè* can be contrasted as a whole with two of its constituent linear morphemes, *e-* and *-rle*, both of which exhibit structural or non-lexical meaning. (Within the category of structural meaning, *e-* has the primary or functional meaning of nominality, since without it *è̩gùarlè* could not be a normal slow-speech noun; while *-rle* has the secondary or positional meaning of extensionality, since without it **è̩gùa* could perfectly well be a normal slow-speech noun, as witness the occurrence of such slow-speech forms as *ìguè̩*, "knee".)

As the above emumerative hierarchy is meant to imply, the criteria of lexemic status are relative rather than absolute in nature: there are degrees of lexemicity. Yet recognition of this fact should not lead to the subjectivistic conclusion that assignment of lexemic status is a wholly capricious or arbitrary procedure. The degrees of lexemicity can be quantitatively assessed and stated. In fact, if we assign number values to the above hierarchy in reverse order, we obtain a reasonably good rank-order of lexemic status, ranging from 10 (maximal lexemicity) to 1 (minimal lexemicity). In these terms, our hierachy should be re-numbered as follows:

4 inflection
3 continuous replication
2 lexical intonation
1 lexical meaning

Ironically perhaps, there are no Bini forms which satisfy all of the above criteria and so attain the 10-point score requisite to maximal lexemicity. But many come close. And all forms intermediate between roots and phrases attain at least the 1-point score of minimal lexemicity.

Maximally, typically, and minimally lexemic forms within each lexeme-class are listed in Table 1.

Table I: Degrees of Lexemicity

class	lexeme	meaning	deficiency	points
I. pronoun				
	wẹ̀wẹ̀	you yourself	-t	8
	rlẹ̀nrlẹ̀n	he himself	-it	4
	rlùẹ́	you (thee)	-irt	1
II. noun				
	ọ̀mọ́n	child	-r	7
	égógó	bell	-i	6
	ẹ̀dó	Benin	-ir	3
III. verb				
	bebe	do mischief	-t	8
	ga	serve	-rt	5
	nọn	is	-irt	1
IV. adverb				
	si̍gósígó	lean	-i	6
	zẹ̍ẹ	exact	-ir	3

Table I cont.

class	lexeme	meaning	deficiency	points
V. particle				
	ènéèné	the very	-i	6
	èbhe̽	what	-ir	3
VI. exclamative				
	sìe̩nsìe̩nsìe̩n	now begins the tale	-i	6
	déè	hey!	-ir	3

CHAPTER 6: LEXEME GRADES

Section 1: Grammatical Gradation

Like Bini speech-sounds, Bini lexemes have degrees of magnitude and inclusiveness. Thus, just as metaphonemes contain phonemes which in turn contain distinctive phonetic features, so do compounds contain words which in turn contain stems.

Not all lexemic grades, however, stand in the relation of container or contained to adjacent grades. Thus, Bini subphrases are usually shorter than compounds and rarely if ever include words. Yet they are here classified as further up the formal hierarchy than compounds because they exhibit the tonal behavior of grammemes (such as phrases and clauses) rather than of words and compounds.

The justification for our non-technical definition of lexemes (in Chapter 5) as "words and word-like forms" is that the full lexemic status of all formal strata except words is open to question: Stems, because they lack both tone and freedom of occurrence — and hence are never uttered by themselves -- could be called expanded (i.e. compound or complex) roots and so classified as morphemes. At the other extreme, many subphrases, when surrounded by maximal disjunctures, may constitute predicants (i.e., utterances which not only are free in occurrence but also exhibit full predication, constituting complete sentences which make statements, requests, or exhortations). Furthermore, their exhibition of grammatical rather than lexical tone makes all subphrases classifiable as phrases which lack only bi-class bilexic status to make them grammemic rather than lexemic in grade. If grammatical (i.e., fixed or predictable) tone is itself granted the status of a prosodic lexeme, then subphrases may plausibly be re-classified as grammemes (i.e., as members of the same super-grade as that to which clauses and sentences belong).

Such a procedure would leave only words and compounds with lexemic status; and it would be easy enough to re-classify compounds themselves as compound (parallel to complex) words and so make words the only recognized lexemes. The lexemic super-grade would then become, in effect, a monotypic species. As such, it would understandably be open to re-examination as a category and perhaps even to re-inclusion within one of the two neighboring super-grades -- probably that of morphemes.

Our reasons for recognizing lexemes as an autonomous super-grade with four included grades are several: First, lexemes as a group are unique -- as we saw in the preceding chapter - in their optional possession of inflection, replication, and lexical (i.e., free or unpredictable) intonation. Neither morphemes nor grammemes may exhibit any one of these three characteristics under any circumstances. To put it negatively, absence of these three formal processes is obligatory for all non-lexemes. And second, an intermediate category between the predominantly monosyllabic, wholly toneless super-grade of morphemes and the wholly polysyllabic, predominantly free, and wholly toneless super-grade of grammemes seems warranted to ease the analytical transition between groups otherwise so sharply separate as to seem almost incommensurable. Moreover, once such a super-grade is recognized, it seems reasonable to suppose that it should contain 3 or 4 grades -- a number, in other words, intermediate between the 2 grades of the morphemic super-grade and the 5 grades of the grammemic super-grade. And 4, in fact, is the number of lexemic grades which we have here established.

In brief, then, lexemes are the taxonomic bridge between such minimal forms as roots and such maximal forms as discourses. It now remains to detail the characteristics collectively and individually, subdividing them, from sub-groups through infra-groups to lexical items.

Collectively, all four lexemic grades exhibit the characteristic which we here term allology, and three of them -- all but stems -- exhibit syllogy as well. Technically speaking, allology is that form of allomorphy exhibited by (and only by) lexemes. Less technically and more precisely, allology is the existence of lexeme variants known as allologs. Allologs may be either free or conditioned. Free allologs are lexeme variants which may occur wherever their alternate form or forms may occur. Conditioned allologs are lexemes which are either phonically, grammatically, or lexically restricted. A phonically restricted allolog is a lexeme that can occur only adjacent to certain phonemes or classes of phonemes. A grammatically restricted allolog is a lexeme that can occur only adjacent to certain categories of lexemes. And a lexically restricted allolog is a lexeme that can occur only adjacent to certain individual lexical items.

Thus, the third person singular pronoun *ọ̀rlé* may have, as a free allolog, the variant *ẹ̀rlé* in any or all of its occurrences. The verb *rle*, "to eat", is replaced by its bound allolog *ri-* before all vowels but not before any other sequential phonemes, such as consonants or disjunctures. The noun *èbé*, "leaf", is replaced by its bound allolog *èbè-* before nouns, pronouns, and particles but not before verbs, adverbs, or exclamatives. And the numeral *ùgíe*, "twenty", is replaced by its bound allolog *ìyÁ-*, "a score", only before the five numerals *èvá*, "two", *èhá*, "three", *ènẹ́n*, "four", *ìsẹ́n*, "five", and *ìyéha̍*, "sixty", (in conjunction with which it means "forty", "sixty", "eighty", "a hundred", and "thirtysix hundred", respectively).

As can readily be seen from the above examples, allolexic variation ranges from minimal, as in the case of *èbé*/*èbè-*, to maximal, as in the case of *rle*/*ri-*, where the free allolog and its bound alternant have no phoneme in common. (If we are then asked why we ascribe these two discrete forms to a single lexeme, the answer, of course, is that they share an identical meaning and similar, if not identical, phonemes which can, in fact, themselves be ascribed to identical metaphonemes -- to wit, *R* and *A*, respectively.)

Most allolog groups, however, are intermediate in phonic variability, having about half their phonemes identical from one alternant to another and half discrete, as in the case of the numeral *ènẹ́n*, "four", whose bound allolog *ùní-* (which occurs only before the locative *ẹ́rlẹ̀*, "today") has three phonemes in common with it and three deviant from it.) Not surprisingly, the class of phonemes most frequently involved in allolexic variation are tones. While most tonal alternation is grammatical and therefore invariably predictable in nature, in some cases it is non-grammatical. The predictability of non-grammatical tone-variation depends on its sub--categorization. When due to shifts in speech-tempo or age-dialect, it is predictable. Such is the case with all disyllabic nouns having the tone-pattern L-TL, which predictably shift to the tone-pattern L-T with increased speech-tempo or in the dialect of young speakers, *èbhîin*, "thing", being abridged to *èbhín*, and so on. But when tone-variation depends on peculiarities in lexical environment, it is unpredictable, as in the case of *-óbọ̀*, the bound allolog of *òbọ́*, "hand", which occurs only after the co-noun *àgÁ-*, "the left". A few nouns -- invariably disyllabic and dimorphic in structure -- exemplify the full range of tonal allomorphy, exhibiting the four tone-patterns TT, TL, LT, and LL. Such a noun is *ẹdẹ*, "day", which has the intonation LT is isolation, TL before numerals, TT before the pro-numeral *onii*, "that", and LL before other nominals.

Syllogy is the existence of bound lexemes. For practical purposes, it refers primarily to those lexemes, here called co-logs, which lack free forms altogether, and only secondarily to the bound allologs of free forms. For taxonomic purposes, however, the classificatory overlap of allology with syllogy must be recognized. Thus, a lexeme may have allologs that are not co-logs, such as the verb *ti*, "to fly", vis-a-vis *tin*, idem; co-logs that are not allologs, such as the adverb *-gbo̍o*, "widely"; and allologs that are also co-logs, such as the pronoun *-rlùẹ́*, "you (thee)", vis-a-vis its by-forms -ùę́, -ǫ̀ǫ́, -ÀÁ, -u̍ę, -ǫ̍, and -A̍.

Most allologous co-logs are of the types illustrated in the preceding five paragraphs and can be labeled either prepositive, as in the case of the co-verb gha-, "shall", or postpositive, as in the case of the adverb -zę̍ę, "exactly". Occasionally, however, a co-log is interpositive -- that is, capable of occurring only between two other lexemes -- as in the case of the lexeme -ę́vÁ-, "ago", which is an allolog of the noun ę̀ghę̀, "time", and must both follow the particle èné-, "the", and precede a numeral, such as -ùsę́n, "five" (itself an allolog of ìsę́n, idem), in combination with which it comes to mean "five days ago".

A few lexemes -- especially basal postpositive pronouns, pro-numeral nouns, co-verbs, and particles -- are phonically so similar to affixes as to bring their supra-morphemic status into question. In cases where their syllabic structure is not merely haplophonic but di-, mono- or even a-phonemic, this question is especially compelling. Such cases are: the zero allolog of the third person singular pronoun -erle, "him", heard in slurred speech; the di-phonemic allolog o- of the noun òbhí, "child", heard in the sentential phrase è'òmę́n, "greetings, my boy"; the mono-phonemic allolog -A- of the pre-verb -Hi-, "(do) not", which occurs after initial pronominal prefixes; and the di-phonemic allolog -A of the postpositive particle -Àrlà, "or", which occurs in slurred or hurried speech.

Such phonic peculiarities, however, seem on balance to be offset by the syntactic and semantic considerations that these truncated forms exhibit the distribution-patterns and meaning-types of normal polyphonemic lexemes. In the succeeding sections, therefore, we shall treat them as lexemes rather than as morphemes.

A final characteristic of lexemes which ought perhaps to be mentioned is homocephaly, or the tendency to repeat capital bases (i.e., noun or verb stems) discontinuously in a manner grammatically more complex than the discontinuous root-replication seen, for example, in the adverb stem *ge-ge...ge*, "highly". Since homocephaly also occurs -- even more pervasively -- among grammemes, it cannot be said to be distinctive of lexemes in the way, say that inflection is. But even though homocephaly does not distinguish lexemes from supra-lexemes (i.e., grammemes), it does sharply distinguish lexemes from sub-lexemes (i.e., morphemes), none of which, at least on the linear level, can or do manifest homocephalic constructions.

Most homocephalic lexemes are nouns of one of the following types:

1. *ẹ̀hóòhò*, "wind", which may be either an irregular strereotonic verbal or an autothetic compound derived from the co-noun **ẹ̀hò*, "breeze".
2. *ọ̀rlò'ìrlò*, "thinker", a stereotonic clausal derived (by a process of tone-erasure and re-intonation) from the grammeme *ọ̀rlò'írlò*, "he thinks" (a predicant clause)
3. *òrlùgbúùrlù*, "cow-stone", which may exhibit either a discontinuous autothetic compound stem with a complex linear infix or discontinuous word-compounding of the co-noun **òrlù* with reverse elision of the nominal prefix.

4. ẹ̀bìinọ̀ọbìerhán, "Daddy Long-Legs" (an insect whose name literally means, "pusher who pushes trees"), a trilexic phrase made up of a noun followed by a particle-plus-verb sequence functioning as a bound nominal clause.

Occasionally we also encounter amphithetic compound verbs such as the subphrase ọ̀khíaanyókhíaanré, "he goes to and fro", which, unlike most amphithetic constructions, is discontinuously rather than continuously homothetic.

In all the above constructions, replication is clearly involved, though it is not always clear whether it is bases or supra-stems (words, compounds, or subphrases) that are being replicated. In all cases where it is supra-stems, what we are dealing with must then be allocephaly rather than autocephaly — that is allothetic rather than autothetic replication of capitals, as witness ẹ̀hó- vs. -òhò, òrlù- vs. -ùrlù, and ọ̀khían- vs. -Ákhían- (the unabridged and unassimilated syllogous allolog of -ọ́khían-).

Lexemic homocephaly differs from grammemic homocephaly in that it rarely involves more than a single replication, whereas grammemic homocephaly readily runs to twice that number of replications, as witness the lexeme ẹ̀hóòhò, "wind", contrasted with the grammeme ẹ̀hóòhòohòhó, "the wind blows" (which is, appearance to the contrary notwithstanding, a predominantly discontinuous replicant, as witness the morpheme-by-morpheme transliteration of it as e-ho-eho-o-ho-ho LL↑LLLLT).

Section 2: Stems

Stems may be defined as minimal lexemes. More precisely, stems are that lexeme-grade which stands closest to morphemes.

It is hardly surprising, therefore, that, because of their peripheral status, doubts arise not only about the super-grade under which stems are to be subsumed (as we saw above) but also about the sub-grades which are to be subsumed under stems. More specifically, it is open to question whether non-simple — that is, compound and complex — affixes, such as the adverbial prefix *À-* (in *-Àtìi*, "in unison"), the nominal suffix *-karla* (in *àgbákàrlà*, "crocodile") and, a fortiori, the multifix *u...HA-me* + LTLL (as in *ùbúnbhēn*, "multitude"), ought not to be classified as minimal lexemes rather than as maximal morphemes. The argument in favor of treating expanded affixes as stems (of a type which might be called "sub-stems") is that affixes are structurally parallel to roots and that expanded roots are here treated as stems.

An even more compelling counter-argument, however, is that all other stems are lexeme-bases built around roots. Since non-simple affixes neither contain roots nor serve as bases for lexemes of supra-basal grade, it seems better to treat such compound and complex forms as morphemes rather than as lexemes. (And that is what we have done in the Morphology and shall continue to do in the subsequent volumes.)

Another way of defining stems is, as we have noted above, to call them expanded roots. And this definition is impeccable as long as we are careful to stipulate that the expansion that makes for lexemicity may be semantic rather than formal in nature. For many monosyllabic stems differ from roots only in that their meaning is more specific than that of the homorphic roots from which they are derived. More exactly, the root, or minimal form, of the lexeme in question has only a general or grammatically "classless" meaning, while the stem, or intermediate form, of the same lexeme has a more precise or grammatically demarcated meaning determined by the lexemic class and to which it belongs. Thus, the root *vun*, "deep", is semantically distinct from the homorphic stems *-vun*, "hole", (as in *ùvún*, idem) and *-vun-*, "deeply" (as in *vu̍un*, idem), which are nominal and adverbial, respectively. (Wherever possible, it seems advisable to define a Bini root by means of an English adjective, precisely because Bini has no adjectives. For such a synonym is grammatically noncommittal and hence comes closest to conveying the classless character of Bini roots. The only mode of definition which might be less ambiguous would be to translate Bini roots into Chinese, a language which lacks lexeme-classes entirely!)

From the stand-point of puristic structuralism, of course,, classifications based on meaning are inadmissible. A pure structuralist would be compelled to say of a form like the verb *ba*, "to watch", from *ba*, "watch", either that it lacks a stem completely or (more probably) that its stem is formed by adding a zero suffix -- generally written Ø -- to the root. But since such analytical sleight-of-hand seems more arbitrary than open recourse to notional definitions, and since this treatise is in any case eclectic rather than puristic in its approach to linguistic theory, we shall here continue to resort to semantic criteria when formal criteria and ambiguous or absent. When, however, formal markers are clearly present, we shall of course take full advantage of them. Thus, from the root bi, "procreation" (ás in ìbìẹ́kà, "children"), we shall derive the two stems -bhi (as in the òbhí, "son"), and biẹ (as in ọ̀bíẹ, "she gives birth") basing our distinctions on the convenient three-way allomorphy of this base.

In the few cases where neither formal nor semantic grounds can be found for distinguishing a root from a stem, or where it seems desirable for some purpose to ignore the distinction, we shall have recourse to the neutral term "base", which may be inclusively defined as "either a root or a stem" and exclusively defined as "any non-affix of sub-lexic grade".

Stems differ from all other lexeme-grades in being obligatorily bound. While words, compounds, and subphrases all have sub-grades that are not free in their occurrence, most members of all three grades are unbound and may occur in isolation.

Stems in general may be sub-graded in either of two ways, which we shall here style the qualitative and the quantitative. The qualitative method groups stems according to their characteristics, some of which can be quantified but many of which cannot; whereas the quantitative method groups stems exclusively on the basis of number, whether it is morpheme-types or structural processes that are being enumerated.

Since, from a grammatical point of view, the qualitative type of classification is both more relevant and more complete than the quantitative, we shall begin with the qualitative. Qualitatively or grammatically speaking, stems can be initially grouped in two broad sub-grades: micro-stems and macro-stems. Micro-stems are stems that that contain or are derived solely from sub-stems — that is, roots and affixes; while macro-stems are stems that contain or are derived from super-stems, such as subphrases or clauses, as well as additive sub-stems — namely, affixes. Since micro-stems are far more numerous than macro-stems, we shall begin our analysis of stems with micro-stems.

Micro-stems as a group are of four types: simple, compound, complex, and compound-complex. Simple micro-stems are structurally identical with roots, and, like roots, contrast with affixes in being coenophonic — that is, capable of containing nasal vowels and diphthongs. As we saw above, they differ from roots only semantically, in that they exhibit lexemic class meaning, whereas roots exhibit only "classless" meaning. Vocalically, they are of four types, depending on whether their initial consonant is followed by (a) an oral vowel, (b) a nasal (c) an oral diphthong, or (d) a nasal diphthong. Examples of each of these minimal stem-types:

1.	de,	"what?"
2.	me̩n,	"I"
3.	fua,	"to be white"
4.	dio̩n,	"elder"

Compound micro-stems are themselves divisible into three sub-types: homothetic, heterothetic, and amphithetic. Homothetic compounding is replication of a base. It may belong to either of two infra-types: autothetic and allothetic. When autothetic, a replicated base is identical in all of its occurrences. Autothesis is in turn of three kinds: duplicative, triplicative, and multiplicative. Duplicative autothesis may be either direct or interdigitative. When direct, such duplication can be either single or doubled. An example of a single direct duplicative autothetic compound micro-stem (!) is *gogo*, "bell". An example of its doubled equivalent is *kokomẹmẹ*, "cucumber". An interdigitative duplicant is *sigosigo*, "tall and thin". (The term interdigitation is purely descriptive and should not be construed as constituting an explicit or even implicit explanation of the process involved in the formation of stems like *sigosigo*. For this form was almost certainly produced by an initial linking of the independent roots *si* and *go* and a subsequent doubling of the resultant amalgam *sigo*. It seems most improbable that *si* and *go* were first discontinuously replicated to produce *si...si* and *go...go* and then "staggered" to yield *sigosigo*.) Triplicative autothetic compound micro-stems may likewise be either direct or interdigitative. An example of direct triplication is *wẹwẹwẹ*, "in whispers". An example of interdigitative triplication is *gobagobagoba*, "swaying like a cripple".

Multiplicative autothetic compound micro-stems are always direct (that is, non-interdigitative) and may involve anywhere from four to six replications of the base. An example is *tititititi*, *tititititi*, or *tititititititi*, "pompety-pom (the sound of a small drum)". If such precision is desired, the shortest of these multiplicants can be termed quadruplicative, the intermediate one quintuplicative, and the longest sextuplicative.

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An example of an allothetic compound micro-stem is mẹnbhẹn, "I myself", where it seems convenient to refer to mẹn as the "normal" form of the base and to bhẹn as its alternate form.

An example of a heterotheric compound micro-stem is mọnbiẹ, "fecund woman", where mọn, "child", is the first component of the stem and the unrelated base biẹ, "give birth", is the second.

An example of an amphithetic compound micro-stem is bigẹngẹn, "skinny", where the first component is probably the base bi, "progeny", (allologous with bhi, "girl") and the second the base gẹn, "thin" (probablyallologous with ghẹn, "lean"), the second component being repeated but the first not.

Complex micro-stems consist of one root preceded or followed by one or more linear affixes. In those cases where the number of such affixes is over two, the third affix and all others added to it must be suffixes. Thus, where R stands for root and A for affix, the pattern for disyllabic complex stems may be either RA or AR, for trisyllabic stems RAA or ARA, and for tetrasyllabic stems either RAAA or ARAA but never *AARA; and so on.

Assuming a prefix in each case, examples of uni-affixative, bi-affixative, tri-affixative, and quadri-affixative complex micro-stems are as follows:

1.	ene,	"the"
2.	ọdinbhin,	"gets deep"
3.	ekpakarla,	"palm-beetle"
4.	ùkoghobozò,	"Latham's Francolin"

Compound-complex micro-stems are micro-stems that contain at least two roots and one linear affix. If their roots are in immediate sequence, they are called continuous; if their roots are separated by an infix, they are called discontinuous. Continuous compound-complex micro-stems may be either homothetic or heterothetic; and those that are monothetic may be either autothetic or allothetic. Complex micro-stem autothesis may be either direct or interdigitative. If direct, it may be either duplicative, or triplicative. When duplicative it may be either uni-affixative or bi-affixative. An example of such direct uni-affixation is the micro-stem *baba'e*, "groped". An example of bi-affixation is its personalized equivalent *ọbaba'e*, "he groped". A parallel example of triplication is *Awẹwẹwẹ*, "secretly".

When interdigitative, complex micro-stem autothesis may be either duplicative or triplicative. When duplicative, it may be basally disyllabic, trisyllabic, or tetrasyllabic. Examples of these three types of interdigitative autothesis are *gidigidi*, "big", *sologansologan*, "sore-footed", and *zigharlakpazigharlakpa*, "rheumatic". When triplicated, autothesis can only be basally disyllabic, as in *yenghenyenghenyenghen*, "coiled".

Allothetic continuous compound-complex micro-stems may be either uni-affixative or bi-affixative. An example of such uni-affixation is *fuọfua'e*, "was white"; and of such bi-affixation, its personalized equivalent *ọfuọfua'e*,"it was white".

Heterothetic continuous compound-complex micro-stems may be either bi-radical or tri-radical. An example of a bi-radical micro-stem is *umọnbiẹ*, "fecund woman". When tri-radical, micro-stems of this type may be either uni-affixative or bi-affixative. An example of the former is *izazako*, "All-Day Runner (a red antelope)"; and of the latter, *ọbẹrlẹkoko*, "timber-tree".

The only discontinuous compound-complex micro-stems of transparent construction are tri-radical. An example is *gegeege* (metaphonemically and morphologically *ge-ge-HA-ge*), "high", which has one form -- an infix -- between its second and third roots. A possible example of a bi-radical stem with two forms (both infixes?) between its roots is *ọpọrhiipọ*, "the tree Sterculia tragacantha"; although this noun, which takes the superfix LLTLL, may actually be an autothetic compound with reverse elision, in which case its stem is simply *ọpọ* and so cannot be classified as compound-complex. A possible example of a quadri-radical discontinuous compound-complex micro-stem is *lagbalaghorli*, "instantly"; although the last two morphemes may be suffixes rather than roots (as is suggested by the parallellism of stems like *ohooghorli*, "prevarication"), in which case the stem is only bi-radical. If one of the two final morphemes is a root and the other an affix, then *lagbalaghorli* is, like *gegeege*, tri-radical; but it still differs from *gegeege* in being amphithetic rather than autothetic.

Macro-stems may be either endo-lexemic or endo-grammemic. Endo-lexemes are lexemes larger than stems which are contained in stems; endo-grammemes are grammemes contained in stems. Endo-lexemic stems may be either trisyllabic or tetrasyllabic. An example of such a trisyllabic stem is the noun *ugaabhen*, "service". While the ultimate core of this lexeme above the root level is clearly the minor verbal micro-stem *ga*, "to serve", it is not clear whether the form is built directly upon it by means of the trifix *u...Ha-me* (in which case it is really a major micro-stem rather than a minor macro-stem); or built from the intermediate verbal stem *uga*, "you serve", by means of the bifix *-HA-me* (in which case again it is not a macro-stem); or built on the minor subphrase *ga*, "serve!", with tone-erasure; or built on the intermediate subphrase *uga*, "you serve", again with tone-erasure (in both of which latter cases it is a macro-stem after all). An example of its tetrasyllabic analog is the noun *ukpọlọọbhẹn*, "magnitude", from the verb-stem *kpọlọ*, "be big" (where interpretation of the added circumfix is similarly in doubt.)

Endo-grammemic macro-stems are of three types: phrasal, clausal, and predicantial. A phrasal stem is one which contains two lexemes of different classes which cannot, either singly or jointly, constitute clauses. Such a phrasal stem is the noun *ẹkoobẹtẹ*, "Big Belly", from the noun *ẹkoo*, "stomach", and the adverb *bẹtẹ*, "fat". (A stem like *ugbẹkun*, "belt", from *gbe*, "to hit", and *ẹkun*, "waist", is phrasal if construed as being directly derived from a toneless and prefixless verb stem, but clausal if construed as being derived from an intermediate toned verb, whether that verb is a prefixless jussive or a second person singular declarative.)

An example of a clausal stem is the noun iboowa, "house-builders". It is not predicantial because its presumptive source, the bound clause -iboowa, "they build houses" (as in the phrase ebhaan niboowa, "people who build houses") can occur only after particles. An example of a predicantial stem is the singular form of the above plural, oboowa, "house-builder", whose presumptive source, oboowa, "he builds houses", can stand alone as a complete utterance.

The quantitative method of classifying stems ignores grammatical class membership and focuses exclusively on the number of morpheme-types found in a given form or on the number of processes needed to produce it. In these terms, all stemmed lexemes can be hierarchically classified according to the number of steps in their stem-expansions, those with only one step being called monobase stems, those with two dibase, those with three tribase, those with four tetrabase, and those with five -- the apparent maximum -- pentabase. Examples of each of these five quantitative stem-grades are:

1.	mẹn,	"I"
2.	ebhe,	"what"
3.	uhobo,	"Urhobo"
4.	ọfiloo,	"he kept dropping"
5.	zigharlakpazigharlakpa,	"rheumatically"

Each of the above five forms is an immediate stem. (The term "immediate" designates a stem which cannot be further expanded without turning it into a supra-stem. Thus, the superfix L turns the stem mẹn into a subphrase; the superfix LT turns ebhe into a co-word; and so on.) Since the form mẹn is also an ultimate stem -- meaning that no morpheme can be subtracted from it -- it is of necessity a one-step stem: that is, a stem without sub-grades. But all the other four stems do have steps or sub-grades as follows (numbered as above):

2.	minor stem	bhe
	major stem	ebhe
3.	minor stem	ho
	intermediate stem	hobo
	major stem	uhobo
4.	minimal stem	fi
	minor stem	filo
	major stem	filoo
	maximal stem	ọfiloo
5.	minimal stem	zigha
	minor stem	zigharla
	intermediate stem	zigharlakpa
	major stem	zigharlakpazigharlakpa
	maximal stem	Azigharlakpazigharlakpa

Of these four forms, the last is open to re-interpretation from two directions. Positively speaking, a sub-grade could be added by maintaining that the minimal stem is really zi+gha and that combining these two components into a heterothetic compound stem is a distinct step in itself. But, negatively speaking, a sub-grade could also be subtracted by maintaining that -rlAkpA, though a compound affix, is a unitary additive from the standpoint of lexeme formation. Balancing the two considerations off against each other, we are brought to the tentative conclusion that, whichever way one construes it, five is probably the maximum number of sub-grades possible in any one stemmed lexeme.

The question finally arises whether there are in Bini any supra-stems which lack stems -- that is, whether there are any words, compounds, or subphrases which are built directly from either morphemes or grammemes without lexemic intermediacy? The answer appears to be yes. To be sure, it is probably ultra-puristic to deny that a verb like de, "to fall", has any stem above and beyond its diphonemic root. But a noun like èbhìinfí, "small-pox", is much too similar to the free clause èbhìin fí, "something attacks", for us to believe that tone erasure and subsequent re-intonation have taken place. This is true a fortiori of such sesquipedalian nouns as àrlò'írlòfìékhòèwèríẹ, "repentance", which is likewise identical, except for disjunctures, with the 9-syllable predicant (meaning "one takes thought, projects his mind, and changes") from which it is derived. Such nouns are comparatively rare, however, and though functionally lexemic, remain grammemes in form.

The preceding question, of course, might well lead us to ask whether stems have any reality outside the minds of linguistic analysts. But this question too can probably be confidently answered in the affirmative. For alternations like that between the last two syllables of the nick-name áyíghẹ́, "Frail", and those of the subphrase ọ̀yinghẹ́n, "he is emaciated", seem to indicate that the sequence yighẹ or yinghẹn has a unity and an identity distinct from those either of syllables on the one hand or of words on the other. And the unit involved gives every evidence of being what we have here termed a stem.

Section 3: Words

Words are the lexemic grade intermediate between stems and compounds. They differ from stems in having obligatory lexical tone and from compounds in not consisting exclusively of word-sequences.

Words may be divided into two sub-grades: bound words (hereafter called co-words) and free words. Co-words, in turn, may be divided into simple and complex infra-grades. And complex co-words, finally, may be subdivided into suffixed and suffixless types. A simple co-word consists structurally only of a root and a lexical tone, as in the case of the exclamative lá-, "hail!" A suffixless complex co-word consists of a prefix, a root, and two lexical tones, as in the case of the particle èné-, "the".

A suffixed co-word consists of a prefix, a root, one or more suffixes, and three or more lexical tones. Such co-words may be either uni-suffixative or bi-suffixative. And those that are uni-suffixative may be either disyllabic or trisyllabic. An example of a disyllabic uni-suffixative co-word is the noun -òdọ́ọ̀, "there". An example of a trisyllabic uni-suffixative co-word is the noun -òsùrlù, "a trice". And an example of a bi-suffixative co-word is the noun -òrlóòhò, "idleness".

Free words, which may stand either in isolation or in juxtaposition with virtually any other word or class of word, may be divided into two infra-grades: micro-words and macro-words.. Micro-words are words that have only sub-words (such as roots or stems) as components; while while macro-words are words that have supra-stems (words, subphrases, or grammemes) as components.

Micro-words, in turn, may be either simple or complex. If simple, they consist structurally only of a root and a lexical tone. An example is the exclamative *tá*, "watch out!"

Complex micro-words may be uni-affixative, bi-affixative, or tri-affixative. Uni-affixatives may be either prefixless or prefixative. And the prefixatives may be either replicants or non-replicants. An example of a prefixless uni-affixative micro-word is the exclamative *déè*, "hey!" .An example of a non-replicant prefixative is *ìsẹ́*, "truly". And an example of a replicant prefixative is *íkẹ̀kẹ́*, "bicycle".

Bi-affixative micro-words may be either prefixative or bi-suffixative. And prefixatives may be either disyllabic or trisyllabic. An example of a disyllabic prefixative is the exclamative *ẹ̀hẹ́ẹ̀n*, "right!" An example of a trisyllabic (non-replicant) prefixative is the noun *íkòló*, "earth-worm". And an example of a prefixless bi-suffixative is the exclamative *káàdà*, "bless you!"

Tri-affixative micro-words may be either bi-suffixative or tri-suffixative. And tri-suffixatives may be either tetrasyllabic or pentasyllabic. An example of a prefixed bi-suffixative is the noun *ùgbòghòdò*, "hollow". An example of a tetrasyllabic prefixed tri-suffixative is the noun *ọ̀hóòghòrlì*, "allie". And an example of a pentasyllabic prefixed tri-suffixative is the noun ùkòghòbòzò, "Latham's bush-fowl".

Macro-words are of two major types: endo-lexemic and endo-grammemic. Endo-lexemics contain words or subphrases; and endo-grammemics contain phrases, clauses, or predicants. Endo-lexemics, in turn, may be either lexic or subphrasal in subtype, the former containing words and the latter subphrases. And lexic endo-lexemics may be either prefixed or prefixless. An example of a prefixless lexic endo-lexemic is the royal name hẹ́nnẹ́ndẹ́n, "gentle", from the homomorphic adverb hẹ̍nnẹ́ndẹ́n, idem. An example of a prefixed lexic endo-lexemic is its allolog èhẹ́nnẹ́ndẹ́n, idem. And an example of a subphrasal endo-lexemic is the noun àrlé, "eating", from the homomorphic verb àrlé, "one eats" (although the homomorphy here may be coincidental).

Endo-grammemic macro-words may be phrasal, clausal, or predicantial in type. An example of a phrasal macro-word is the nick-name ẹ̀kóòbẹ̀tẹ̀, "Big-Belly". An example of a clausal macro-word is the homocephalic epithet ẹ̀gbènọ̀gbìfíe, "afternoon harmattan" (literally, "The Beater who beats the bush"). An example of a predicantial macro-word is the personal name òsàhọ́n, "God hears". In a few cases, one encounters onomastic nouns which can be assigned to either class depending on one's interpretation of their structure. Thus the epithet èbhìnfí, "small-pox", is predicantial if interpreted as a simple noun-plus-verb sentence, literally meaning "something attacks", but a clausal if interpreted as an elliptical relative construction meaning "something which attacks". (The second interpretation is equally plausible whether one regards the disappearance of the relative particle *èné* from between *èbhíìn* and *fi* as due to phonic elision or morphic zeroing. Compare the analogous option in interpreting such English ellipses as "ought do".)

Endo-grammemic macro-words may be either prefixed or prefixless, may contain anywhere from 2 to 6 words each, and may contain lexemes from any class. Since, however, most endo-grammemics are names, and since their number and structural variability is extremely great, it seems best to postpone detailed consideration of them till the section on nouns in the succeeding chapter (q.v.).

Section 4: Compounds

Compounds are sequences of two or more words of the same lexemic class. Unlike words, they have no immediate stems, though they do have ultimate stems, consisting of the stems of their constituent words. They may be either bound or free. Bound compounds, in turn, may be either homothetic or heterothetic. An example of a homothetic bound compound is the particle [illegible], "the very". An example of a heterothetic bound compound is the adverb [illegible], "ta ra ra boom!"

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Free compounds may be either continuous or discontinuous. Continuous free compounds may be either homothetic, heterothetic, or amphithetic. And homothetic continuous free compounds may be either dilexic, trilexic, or polylexic in composition. Such dilexic compounds, finally, can be either bi-liberal or mulli-liberal in type. An example of a bi-liberal dilexic homothetic continuous free compound is the noun [illegible], "foliage", from the free noun [illegible], "leaf". An example of a mulli-liberal dilexic homothetic continuous free compound is the noun [illegible], "flower", from the co-noun [illegible], "blossom". (As the reader may have divined, both [illegible] and [illegible] seem to be derived from a root be, with variant bo, meaning "bloom". For the front-back allomorphy, compare such roots as ge/go, "high".)

An example of a trilexic homothetic continuous free compound is the exclamative [illegible], "so begins the tale". An example of its polylexic analog is the exclamative [illegible].

Section 4: Compounds

Compounds are sequences of two or more words of the same lexemic class. Unlike words, they have no immediate stems, though they do have ultimate stems, consisting of the stems of their constituent words. They may be either bound or free. Bound compounds, in turn, may be either homothetic or heterothetic. An example of a homothetic bound compound is the particle *ènéèné*, "the very". An example of a heterothetic bound compound is the adverb *ti̍ghídígbē'ìn*, "ta ra ra boom!"

Free compounds may be either continuous or discontinuous. Continuous free compounds in turn may be either homothetic, heterothetic, or amphithetic. And homothetic continuous free compounds may be either dilexic, trilexic, or polylexic in composition. Such dilexic compounds, finally, can be either bi-liberal or nulli-liberal in type. An example of a bi-liberal dilexic homothetic continuous free compound is the noun *èbéèbé*, "foliage", from the free noun *èbé*, "leaf". An example of a nulli-liberal dilexic homothetic continuous free compound is the noun *óbòóbò*, "flower", from the co-noun *-óbò-*, "blossom". (As the reader may have divined, both *èbé* and *-óbò-* seem to be derived from a root *be*, with variant *bo*, meaning "bloom". For the front-back allomorphy, compare such roots as *ge/go*, "high".)

An example of a trilexic homothetic continuous free compound is the exclamative *sīęnsìęnsìęn*, "so begins the tale". An example of its polylexic analog is the exclamative *fi̍ęnfíęnfíęnfíęn*, "squeak! squeak!", which may be extended till there are five or six repetitions of the bound exclamative *-fíẹn-*, "squeak!"

Heterothetic continuous free compounds may be dilexic, trilexic, or polylexic to an indefinite degree. When dilexic, they may be either uni-liberal or bi-liberal. An example of a uni-liberal dilexic heterothetic continuous free compound is the noun *ízáàbọ́*, "shoulder", from the nouns *ízá-*, "base", and *òbọ́*, "arm" (of which *àbọ́*, "branch", is a fossilized plural). An example of its bi-liberal equivalent is *érhíiyé*, "paternal grandmother", from the nouns *érhá*, "father", and *íyé*, "mother". (Whether there are nulli-liberal heterothetic compounds is a largely unanswerable question, since, if there were, there would be no purely structural means of distinguishing them from polysyllabic non-compounds. Semantic considerations, however, might lead us to posit the compounding of co-words in the case of a noun like *ìbìẹ́kà*, "children", where the pre-noun *ìbi̽-* perhaps means "child" and the after-noun *-ẹ́kà*, "group").

Polylexic heterothetic compounds can be produced more or less at will. That is, a noun like *òmọ́n*, "child", can be compounded once to produce a dilexic noun, *òmọ́ọ̀ngìe*, "child of a chief"; twice to produce a trilexic compound *òmọ́ọ̀ngìeésàn*, "child of an Ishan chief"; and so on without any theoretical limit, although it is obvious that the longer the compound, the less frequent, on the average, its occurrence will be.

Amphithetic continuous free compounds must contain, by definition, a minimum of three words. An example of such a compound is *ùgbúgbẹ̍hi̍a*, "always", from *ùgbẹ́-*, "time" (an allolog of *ígbà* or *ùgbẹ̀n*, idem) and *èhía*, "all".

All discontinuous compounds are infixed. They may be either dilexic or trilexic. An example of a dilexic discontinuous compound is the noun *ègédéègé*, "storey house", from the co-noun *ègé-*, "tall structure". An example of its trilexic equivalent is the noun *ẹ̀dẹ́dẹ́bhẹ̀ndẹ̀*, "any time", from the free noun *ẹ̀dẹ́*, "day".

Section 5: Subphrases

A subphrase is a lexeme which has grammatical or predictable rather than lexical or unpredictable tone. Subphrases may be either bound or free. Bound subphrases may be either prepositive, interpositive, or postpositive. Examples of each of these three types of bound subphrases are the verb gha-, "shall", the verb -Hi-, "not", and the pronoun rlùę́, "you (thee)", respectively.

Free subphrases may be either simplices or compounds. Simplices may be either micro-lexemes or macro-lexemes. Macro-subphrases contain no lexemes beyond pronominal and verbal stems. They may be simple, compound, complex, or compound-complex in structure. An example of a simple free micro-subphrase is the verb bhe, "to get wide".

Compound free micro-subphrase simplices may be either homothetic or heterothetic. When homothetic, in turn, they may be either autothetic or allothetic. An example of an autothetic compound free micro-subphrase simplex is the intensive pronoun węwę, "you yourself" or "thou forsooth!" An example of its allothetic equivalent is the intensive pronoun męnbhęn, "I myself". An example of a heterothetic compound free micro-subphrase simplex is the verb rlibhian, "to plead".

Complex free micro-subphrase simplices may be di-morphemic, tri-morphemic, or tetra-morphemic. When di-morphemic, they may be either monosyllabic or disyllabic. An example of a monsyllabic di-morphemic complex free micro-subphrase simplex is the verb bhee, "to make wide". An example of its disyllabic analog is the verb ọfi, "he drops". When tri-morphemic, such simplices may be either disyllabic or trisyllabic. An example of a disyllabic tri-morphemic complex free micro-subphrase simplex is the verb ọbhẹẹ, "he widens". An example of its trisyllabic analog is the verb ọfilo, "he repeatedly drops". An example of the same verb in its maximal or tetra-morphemic form is the perfective ọfiloo, "he repeatedly dropped".

Compound-complex free micro-subphrase simplices may be either homothetic or heterothetic. When homothetic, they may be either autothetic or allothetic. When autothetic, they may be either suffixed or suffixless. An example of a suffixless autothetic compound-complex free micro-subphrase simplex is the verb ọbibi, "he gropes". The suffixed equivalent of the same verb is its perfective ọbibii, "he groped". Examples of the suffixless and suffixed allothetic analogs of the two preceding forms are the verbs ọfuọfua, "it was white". And examples of the equivalent heterothetic analogs of the above are the verbs ọrlibhian, "he pleads", and orlibhian'en, "he pleaded".

Macro-subphrases are all verb-derived noun simplices. They may be either endo-lexic or endo-clausal. Endo-lexics contain only a verb and a circumfix. An example is the noun ùgáàbhẹ̀n, "service", from the verb ga, "to serve".

Endo-phrasal macro-subphrases are such verbal nouns as *ọ̀bòowà*, "house-builder", *ìbòowà*, "house-building", and *ùkpàabọ̀*, "washing-dish", the first two of which are derived from the clause *bòowá*, "to build houses" (itself derived, in turn, from the verb *bo*, "to build", and the noun *òwá*, "house"), and the last of which is derived from the clause *kpàabọ́*, "to wash hands" (in turn derived from *kpe*, "to wash", and *àbọ́*, "hands").

All subphrase compounds are discontinuous verbs. They may be either homothetic or heterothetic in type. An example of a homothetic subphrase compound is the verb *khian...khian*, "to walk and walk". An example of a heterothetic subphrase compound is the verb *hun...waan*, "to quiet down".

CHAPTER 7: LEXEME CLASSES

Section 1: Lexeme Classification

Lexemes of different grades differ, as we have seen, in length or inclusiveness. But lexemes of different class need not differ at all in size or hierarchical status. They need differ only in their function and distribution within supra-lexemic constructions (i.e., grammemes), such as phrases, sentences, or discourses.

However, we cannot legitimately define incompletely known entities, such as lexeme classes, in terms of entities even less well known (as regards our expository sequence), such as syntactic relations. Instead, we must attempt — temporarily, at least — to group them in terms of the non-syntactic relations between them.

One such non-syntactic relation between classes is the diachronic or historical relation. Since pre-British documents from Benin do not exist, and since we have not made a detailed comparative study of the relations between Bini and other Edo languages, any historical reconstruction of pre-Bini which we make must of necessity be a primarily internal reconstruction. From the standpoint of an archivist or archeologist, such history is quite frankly pseudo-history. Yet it is not therefore valueless. For any sort of diachronic view of form-classes, however sketchy or shallow, helps give depth to the otherwise wholly "flat" view of them which we obtain from an exclusively synchronic view.

As we observed in the Phonology, all syllables are subject to reduction in slurred speech, initial consonants being lost, diphthongs becoming monophthongs, and nasal vowels, in some cases, becoming oral. Since slurring is commoner in peripheral than in central positions in lexemes, it is hardly surprising that affixes regularly show a simpler syllabic structure than do roots. But even among lexemes themselves there are differences in root-structure, particles exhibiting roots which are haplophonic -- that is, affix-like -- in syllabic type. Nor are particles the only lexeme-class that shows signs of phonic reduction: Pronouns never contain diphthongs. Adverbs begin invariably with the single blurred vowel A- rather than with any one of the four vowels with which verbs may begin or the full range of seven vowels with which nouns may begin. And exclamatives are frequently di-phonemic, consisting only of a vowel and a tone, and lacking in the initial consonant with which any root normally begins.

In phonological terms, the sub-grammemes (that is, morphemes and lexemes collectively) can be ranked, in decreasing order of syllabic variety and vocalic clarity, as follows:

1. nouns, verbs, and roots
2. adverbs
3. exclamatives
4. pronouns
5. particles
6. affixes

The most plausible way to account for the phonic differences between these form-classes may be to assume that the classes exhibiting clear vowels and complex syllables are older and that those exhibiting blurred vowels and reduced syllables are more recent. It remains a question, of course, what origin we shall ascribe to the phonically blurred and reduced classes. But while there can be no certainty in speculative matters, it seems plausible to assume that the reduced classes are diachronically derived from the unreduced classes. More precisely, the eight sub-grammemic classes listed above appear to constitute a historical series, in which the first category is most recent and the sixth oldest. The assumption behind such a historical seriation is that nouns (for example) are now what pronouns recently and affixes not so recently were too.

What name, though, can we give to such a hypothetical form-class? In Volume I we termed the members of this class capitals (or "head words") because they seemed to constitute the cores of nearly all grammatical constructions. In these terms, affixes are "de-capitalized" roots and adverbs de-capitalized nouns or verbs. Justification for this procedure seems to be provided by the existence of ambiguous utterances like the following, each of which may be construed either verbally or nominally, depending on its context:

ìdó,	"I weave"	or "loom"
ùwú,	"you die"	or "death"
ọ̀fó,	"it ends"	or "the end"

The simplest solution, of course, is simply to call them capitals and to say that they are morphologically indistinguishable but syntactically discriminable on the basis of function. (The existence of sequences like ọbowa, which are lineally indistinguishable but tonally distinct as nouns and as verbs, may be used as an argument for maintaining that nouns and verbs can have identical stems and that therefore stems are morphemes rather than lexemes.)

Orthodox structuralists, of course, eschew such unsubstantiable theorizing. For them, sound classifications can be based only on explicit formal criteria. In these terms, we begin by excluding morphemes from our discussion of lexeme-classes. We ought, preferably, to exclude distributional criteria from our discussion as well. And, ideally, we should confine our analysis to a series of bifurcatory divisions and sub-divisions of our data. If we follow this procedure as puristically as possible, what we get is an initial division of lexemes generally into two major classes: inflectables (such as ọ̀món: èmón, "child: children") and uninflectables (such as èné, "the"). Bifurcating both divisions, we now get four sub-divisions: non-aspectuals (such as ọ́bá, "king") and aspectuals (such as ọ̀bá: ọ̀bá'è, "he watches: he watched") and eumorphics (such as ède̽, "what") and dysmorphics (such as ạ́, "oh"!) Bifurcating once again, we find ourselves with eight infra-divisions: polymorphics (such as wẹ: uwẹ: wẹwẹ: wa: uwa: wawa, "you") vs. dimorphics (such as òbhí: ìbhí, "offspring"); impersonals (such as zẹẹ, "exactly") vs. personals (such as iba: uba, "I watch: you watch"); simplices (such as èbhe̽, "which") vs. compounds (such as ènéne̍, "the very"); and euphonics (such as sáà, "shoo!") vs. dysphonics (such as pr̀rr, "swish!")

From a pragmatic standpoint, however, it seems unnecessary to conform strictly to any single criterion in setting up lexeme-classes. On the contrary, an eclectic approach appears more useful, both in the sense that it is less pedantic and in the sense that it spreads a wider net, by making use of syntactic and semantic criteria when phonic and morphological criteria are ambiguous or absent.

The taxonomic criteria here employed for positing, enumerating, and distinguishing lexeme classes will be of the eclectic rather than the historical or structural type. But they will not therefore be arbitrary or capricious in either their nature or their mode of application. For a hierachical seriation of criteria will be employed, such that any given criterion will be employed only if the criterion immediately preceding it in the hierarchy proves indeterminate. The criteria to be employed, then, are, in order of precedence:

1. paradigmatic or inflectional
2. derivational
3. syntactic, distributional, or functional
4. phonic
5. reconstructional, diachronic, or historical
6. semantic or notional

In these terms, the six lexeme-classes which it seems most practical to recognize in Bini are as follows:

1. pronouns

2. **nouns**
3. **adverbs**
4. **verbs**
5. **particles**
6. **exclamatives**

Section 2: Pronouns

Bini pronouns are inflectable nominals, inflectables being lexemes that exhibit paradigms or form-series, and nominals being lexemes that are inflected for plurality. Pronouns differ from the other nominal class, nouns, in that they may have as many as 12 forms in a paradigm, whereas nouns may have only 2.

Derivationally, pronouns are a self-contained class, in that none of them seem capable of being derived, either historically or internally, from lexemes of other classes. Syntactically, however, they behave like restricted nouns, in that nouns can occur in all positions where pronouns can, although pronouns cannot occur in many positions where nouns can. Phonically they are the most abridged of all lexeme-classes, since they never contain more than 2 syllables, whereas all other classes exhibit members which contain 3 syllables. As regards syllabic structure, pronouns are the next simplest of all lexeme-classes, only particles being simpler. More precisely, particles may contain only simple oral vowels and pronouns only simple vowels, whether oral or nasal; whereas other lexeme-classes may contain diphthongs as well.

As regards lexemic grade, all pronouns are stems before intonation and subphrases when endowed with tone. The fact that their tone-patterns are always predictable prevents their being considered words or compounds.

Surprisingly, perhaps, there are only three pronouns in Bini, although each of the three is of frequent occurrence and protean in form, both paradigmatically and allologically speaking. These three are: men, "I"; we, "you"; and rle, "he (she, it)".

Each of the three pronouns is at least systemically or theoretically capable of exhibiting twelve non-allologous forms, which may be structurally labeled as follows:

1. basal prepositive singular
2. extensional prepositive singular
3. basal postpositive singular
4. extensional postpositive singular
5. continuous replicative singular
6. discontinuous replicative singular
7. basal prepositive plural
8. extensional prepositive plural
9. basal postpositive plural
10. extensional postpositive plural
11. continuous replicative plural
12. discontinuous replicative plural

In semantic rather than structural terms, these twelve paradigmatic slots may be re-labeled as follows:

1. subjective singular
2. emphatic subjective singular

3. objective singular
4. emphatic objective singular
5. intensive singular
6. rejective intensive singular
7. subjective singular
8. emphatic subjective plural
9. objective plural
10. emphatic objective plural
11. intensive plural
12. rejective intensive plural

A generalized pronominal paradigm, schematically presented in the form of a recitational analysis, looks like this (where P means "vowel prefix", R means "singular root", Rh means "same root", Rp means" plural root", I means "infix", T means "top tone", and L means "low tone"):

1. R - L
2. P — R - LL
3. P - R - TL
4. P - R - TL
5. R - Rh - LL
6. R - I - Rh - LLL
7. Rp - L
8. P - Rp - LL
9. P - Rp - LT
10. P - Rp - TL
11. Rp - Rh - LL
12. Rp — I - Rh - LLL

Concretizing our abstract paradigm somewhat by substituting the pattern of the first pronoun men, "I", for the R, we get (where Pl means "a variant of the vowel prefix ", Rl means "a variant of the root", and Ra means "the root with a substituted for its vowel"):

1. R - L
2. P - R - LL
3. Pl - Rl - LT
4. P - R - TL
5. R - Rl - LL
6. R - I - Rl - LLL
7. Ra - L
8. P - Ra - LL
9. Pl - Ra - Lt
10. P - Ra - TL
11. Ra - Rla - LL
12. Ra - I - Rla - LLL

Phonologizing the first-pronoun paradigm by substituting its actual phonemes for the morphological symbos P, R, and I, we now get:

1. me̩n - L
2. i - me̩n - LL
3. A - bhe̩n - LT
4. i - me̩n - TL
5. me̩n - bhe̩n - LL
6. me̩n - HA - bhe̩n - LLL
7. man - L
8. i - man - LL
9. A - bhan - LT
10. i - man - TL
11. man - bhan - LL
12. man - HA - bhan - LL

The concluding step in our constructional series comes when we fit all three pronouns into the above framework in a wholly concrete phonemic notation, with English glosses for each item, as in Table 2. Allology is extensive among pronouns. Specifically, the following variants are encountered:

1. *-Àbhé̩n* "me (my)", becomes *-ò̩bhé̩n* after the allolog *ri-* of the verb *rle*, "to eat". It becomes *-òbhé̩n* or *-ùbhé̩n* (two forms which are in free variation) after the noun *ó̩gné*, "possession". It becomes

Table 2: Pronoun Paradigms

1.	mè̩n,	"I"	7.	màn,	"we"
2.	ìmè̩n,	"I"	8.	ìmàn,	"we"
3.	-Àbhé̩n,	"me (my)"	9.	-Àbhán,	"us (our)"
4.	ímè̩n,	"me (my)"	10.	ímàn,	"us (our)"
5.	mè̩nmè̩n,	"I indeed"	11.	----	----
6.	mè̩e̩nbhè̩n,	"I indeed"	12.	màanbhàn,	"we indeed"

1.	wè̩,	"you (thou)"	7.	wà,	"you (ye)"
2.	ùwè̩,	"you (thou)"	8.	ùwà,	"you (ye)"
3.	-rlùé̩,	"you, your (thee, thy)"	9.	----	
4.	úwè̩,	"you, your (thee, thy)"	10.	úwà,	"you (your)"
5.	----	"you indeed (thou forsooth)"	11.	----	"you indeed (ye forsooth)"
6.	----		12.	----	

1.	rlè̩n,	"he (she, it)"	7.	----	
2.	ìrlè̩n (è̩rlé)	"he (she, it)"	8.	----	
3.	-é̩rlè,	"him, his (her, hers; it, its)"	9.	----	
4.	írlè̩n (é̩rlè)	"him, his (her, hers; it, its)"	10.	írlàn,	"them"
5.	rlè̩nrlè̩n,	"he (she, it) indeed"	11.	----	
6.	----		12.	----	

-bhẹ́n after the noun ọ̀tẹ́ẹ̀n, "kinsman". And it becomes -mẹ́n after the allolog -ò- of the noun òbhí, "child".

2. -Àbhán, "us (our)",becomes -ọ̀bhán, -òbhán, -ùbhán, -bhán, and -mán after the same three lexemes listed under item (1.) above.

3. -rlùẹ́, "you (your)", appears unchanged only after nouns ending in oral vowels, such as ebe, "book, and verbs ending in double oral vowels, such as haa, "to startle". Obligatorily after verbs ending in single oral vowels, and optionally after nouns ending in oral vowels of any length, it becomes -ùẹ́. Obligatorily after verbs with the stem-vowels a and o, and optionally after nouns with the same two vowels in final position, it becomes -ÀÁ, which, after a top tone is optionally shortened to -A̍. When the vowels preceding it are nasal, the four forms -rlùẹ́, -ùẹ́, -ÀÁ, and -A̍ become -rlùẹ́n, -ùẹ́n, -ÀÁn, and -A̍n, respectively.

4. rlẹ̀n, "he (she, it)", changes to lẹ̀ or nẹ̀ (two forms in free variation with each other) before the verb bhoo, "where is...?"

5. ìrlẹ̀n, "he (she, it)" is in free variation with ẹ̀rlé and ọ̀lé in isolation position. There is, however, a tendency to prefer ìrlẹ̀n in reported speech constructions and the other two forms in direct speech constructions.

6. -ẹ́rlè, "him (his)", remains unchanged after nouns ending in any vowel except o or a and after verbs ending in uu, ii, or ee.

After verbs ending in *uurle*, *iirle*, or *eerle*, it becomes *-ę̀rlé*. After verbs ending in *oo* or *ee*, it becomes *-ǫ́rlè*. After verbs ending in *oorle* and *eerle*, it becomes *-ǫ̀rlé*. After nouns ending in *ǫ* or *a*, it becomes *-Árlè*, with accelerated speech variants *-Árlè*, *-è*, *-À*, and *-0̀* (listed in order of increasing speech acceleration). After verbs ending in undoubled *u*, *i*, or *e*, it becomes *-ę́'è*, with accelerated speech variants *-ę́'è*, *-ę́ę̀*, and *-ę́*. After verbs ending in *uu*, *ii*, or *ee* (when these verbs are perfectives from stems in undoubled *u*, *i*, or *e*), it becomes *-ę̀'é*, with accelerated speech variants *-ę̀ę́* and *ę̍*. After verbs ending in undoubled *o* or *e*, it becomes *-ǫ́'è*, with accelerated speech variants *-ǫ́'è*, *-ǫ́ǫ̀*, and *-ǫ́*. After verbs ending in *oo* or *ee* (when these are from *orle* or *erle*), it becomes *-ǫ̀'é*, with accelerated speech variants *-ǫ̀ǫ́* and *-ǫ̍*. And after words ending in nasal vowels, these forms change as follows: *-ę́rlè* to *-ę́nrlę̀n*; *-ę̀rlé* to *-ę̀nrlę́n*; *-ǫ́rlè* to*-ǫ́nrlę̀n*; *-ǫ̀rlé* to-*ǫ̀nrlę́n*; *-Árlè* to *-Ánrlę̀n*; *-ę̍́è* to *-ę́ę̀n*; *-é* to *-ę̀n*; *-Á* to *-Àn*; *-ę̀ę́* to *-ę̀ę́n*; *-ę̀'é* to *-ę̀ę́n*; *-e̍* to *-ę̍n*; *-ę́'è* to *-ę́ę̀n*; *-é* to *-ę́n*; *-ǫ́'è* to *-ǫ́n'ę̀n*; *-ǫ́ǫ̀* to *-ǫ́ǫ̀n*; *-ǫ́* to *-ǫ́n*; *-ǫ̀'é* to *-ǫ̀n'ę́n*; *-ǫ̀ǫ́* to *-ǫ̀ǫ́n*: *-ǫ̍* to *- ǫ̍n*; *-ǫ́'è* to *-ǫ́n'ę̀n*; *-ǫ́ǫ̀* to *-ǫ́ǫ̀n*; and *-ǫ́* to *-ǫ́n*.

7. *rlę̀nrlę̀n* "he himself (she herself, it itself)", with its accelerated speech variant *rlę̀ęn*, is in free variation with its allothetic alternant *rlǫ̀nrlę̀n*. This form, in turn, has the three accelerated speech variants *rlǫ̀n'ęn*, *rlǫ̀ǫn*, and *rlǫ̀n*.

8. *írlàn*, "them", has an accelerated speech variant *í'àn*.

Although, strictly speaking, such explanations belong to syntax rather than to lexemics, one feels obliged to explain that in discourse all the empty slots in Table 2 are filled by extension from the full slots. More precisely, the discontinuous replicative (or rejective intensive) second pronoun slots are filled by suppletion from the continuous (or non-rejective intensive) slot, *wę̀wę̀* and *wàwà* replacing **wę̀ęwę̀* and **wàawà*. And the basal postpositive (or objective) plural second pronoun slot is filled by suppletion from the extensional postpositive (or emphatic objective) plural slot, *úwà* replacing **ùwá* or **rlùá*.

Such suppletion is most extensively resorted to in the third pronoun paradigm, where, in the singular, the continuous replicant *rlę̀nrlę̀n* replaces the discontinuous replicant **rlę̀ęnrlę̀n* and, in the plural, the extensional postpositive (or emphatic objective) form *írlàn* replaces all other forms (which we could speculatively represent as **rlàn*, **ìrlán*, **ę̀rlá*, **rlànrlàn*, and **rlàanrlàn*, respectively).

Even after we have made allowance for empty slots and suppletives, however, there remain pronominal forms which diverge from the shape one would predict for them. The first of these is *-Àbhę́n*, "me", where one would expect **-ìmę́n*. Since, though, *A* often replaces *i* and *bh* often replaces *m* before nasal vowels elsewhere, this form in itself does not seem excessively anomalous. What is more surprising is that all of the variants of *-Àbhę́n* (*-ǫ̀bhę́n*, *-òhbę́n*, and *ùbhę́n*) show back-vowel rather thanfront-vowel prefixes. But perhaps even this unanticipated development can be explained in terms of the retracting effect of the labial consonant *bh* on a preceding front vowel. (What we have here written of the singular form *-Àbhẹ́n* applies equally, of course, and in complete detail to its plural equivalent *-Àbhán*.)

The occurrence of the form *rlùẹ́*, "you (thee)", in place of the expected form **ùwẹ́* is even more puzzling. What probably happened, however, is that **ùwẹ́* early lost its intervocalie *w* and that the resultant **ùẹ́* then acquired a spurious initial *rl* by a process of back-formation or over-correction made easy by the large number of Bini lexemes in which *rl* may be dropped (and replaced) initially as well as medially. (Compare the co-verb *rlua* or *ua*, "to do completely", which, like the pronoun *rlùẹ́*, has variants which are haplophonic and others which are nasalized.)

In the third pronoun paradigm, it is mildly surprising to find *rlẹ̀n* for **rlè*, *ẹ́rlè* for *ẹ̀rlé* (see above), and *írlàn* for **írlà*. Yet parallels for these transformations can be found in most other lexeme-classes but especially among nouns, where we find *èsáàgìẹn*, "blood", alternating with *èsáàgìe*, idem, and *ẹ̀dẹ́* alternating with *ẹ̀dẹ̀-*, "day".

The only Bini lexeme whose pronominal status is much in doubt is the form *ghá* (with accelerated speech variant *á*), "who?" Unlike *mẹ̀n*, *wẹ̀* and *rlẹ̀n*, *ghá* is uninflected and belongs to the lexic rather than the subphrasal grade of lexemes. Phonically, syntactically, and semantically, however, its behavior is acceptably pronominal. If we do accept it as a full-fledged pronoun, we must dichotomize the pronoun class into two sub-classes, one of which contains *ghá* and the other all other pronouns. Structurally,,the latter sub-class would have to be called paradigmatic or inflectable, and the *ghá* sub-class aparadigmatic or uninflectable. Semantically, the larger sub-class could be called personal or declarative, and the *ghá* sub-class impersonal or interrogative. Historically, *ghá* may well be a fossilized pronominal plural (cf. *wà*, "ye"), whose singular **ghę́* has been lost.

All things considered, it seems best to compromise by calling *ghá* a pronoun-substitute, bearing the same relation to full-fledged pronouns that uninflectable nouns like *òbhé*, "sleep", bear to pluralizing nouns like *òbhí*, "child".

Since all basal postpositive (or objective) pronouns are bound and all of them either are monosyllabic or have monosyllabic variants, it could be argued that they are, like the verbal person-markers *i-*, *u-*, and *o-*, affixes rather than subphrases. But in view of the fact that their maximal forms are phonically, structurally, and paradigmatically similar to the free pronouns, it seems best to treat them as lexemes rather than as morphemes. When necessary, we can distinguish them from the unrestricted pronouns by calling them co-pronouns (analogous to co-nouns like *-èría*, "this way").

Undoubtedly the knottiest of all theoretical problems

2

concerning the Bini pronoun, however, is that of the shape of the singular root and the plural stem. Despite the brevity and apparent simplicity of such forms as *wẹ̀*, "you (thou)", and *wà*, "you(ye)", their structure can be interpreted in any of at least four fundamentally different ways.

The first of these is to assume that both forms have only one dimorphic base, which we may represent metaphonemically as *wE*. This morphophonemic shape is then phonemically actualized as the two free allomorphic root-variants *wẹ* and *wa* (whose high-low vowel contrast parallels the front-back vowel contrast in the root-pair *ge* and *go*, "high"). When these two roots become stems, they change both grammatically and semantically by being impressed into service as conditioned alternants in a singular-plural paradigm.

The second analytical approach is to assume, as above, a metaphonemic root-shape, but this time to give it a wholly colorless meta-vowel and write it *wA*. This root then becomes a stem only when it acquires the metaphonemic suffix *-Hẹ*, signifying singularity, or the alternative suffix *-Ha*, signifying plurality. Although the resultant phonemic actualizations ought to have the decelerated-speech forms **wẹẹ* and **waa*, this difficulty can easily be got round by positing vowel-coalescence over a protracted period of time.

The third approach assumes the same root, *wA*, which adds a suffix *-Hẹ* to form the stem **wẹẹ*, abridgeable (and abridged) to *wẹ*. The affix *-Ha-* is then assumed to constitute an infix which is inserted between the root and the suffix to indicate plurality. The resultant phonemicization *waaa is then shortened, first to *waa and then to wa, the phonic process assumed being no different from that in the preceding paragraph but the time allowed for it being longer.

The fourth approach is to assume a root we̩ which remains unchanged to form the singular stem but adds a suffix -Ha to form a plural stem. The difficulty caused by the non-appearance of the anticipated form *waa can then be handled as above.

While all of these explanations are plausible, the fourth has the advantage of maximal simplicity, although the second better parallels the observed alternation of suffixes among pluralizing nouns.

Section 3: Nouns

Bini nouns are inflectable nominals that differ from pronouns in having only 2 (as opposed to the pronominal 12) slots in their paradigms. Alternatively, we may say that nouns are paradigmatic lexemes that inflect for plurality only.

Gradationally speaking, nouns are by far the most inclusive of Bini lexemes. Nouns exhibit membership in all four of the major lexeme-grades (stems, words, compounds, and subphrases), in several sub-grades (co-words, micro-words, and macro-words), and even in three infra-grades (pre-words, inter-words, and after-words). In this sense, Bini nouns may fairly be called a microcosm of the entire lexeme category. (For an outline of this extensive microcosm see Table 3.)

Nouns are also unique in being the only lexeme class that contains lexemes derived from lexemes of other classes (primarily from verbs and adverbs).

Syntactically, nouns occupy the same distributional positions that pronouns do. That is, they serve typically as subjects or objects of verbs. But they can also fill adverbial slots (as locatives) or exclamative slots (as vocatives).

Phonically, nouns resemble adverbs in that their full (that is, eumorphic and metaphonemic) forms range from a minimum of

2 to a maximum of 9 syllables. Nouns differ from pronouns, verbs, and particles in that recent loan-words of nominal class may be dysphonic. But they differ from adverbs and exclamatives in that they are never paraphonic.

Historically, nouns certainly seem to be one of the oldest lexeme-classes. In fact, with the possible exception of pronouns, verbs appear to be the only lexeme-class that rivals nouns in either diachronic or synchronic primacy. Dr. Melzian, presumably basing his implicit argument on the fact that nouns can be derived from verbs but not vice-versa, evidently believed that verbs were in some sense prior to all other word-classes, including nouns. If anything, however, I believe that nouns deserve to be called the primal lexeme-class, since there are far more nouns than verbs in Bini, nouns are gradationally far more versatile than verbs, and nouns are more likely than verbs to have been the source of most Bini adverbs. As we indicated in Section 1, however, the least invidious of deductive procedures in regard to the history of lexeme-classes is probably to label members of the source-class "capitals" and to say that nouns and verbs enjoy parity in capital status.

Semantically, nouns differ from verbs in Bini, as in English, in that nouns most commonly designate persons or objects and verbs most commonly designate events and processes.

An archetypical noun — which is to say, a noun that is virtually impossible to take for a non-noun — is the word *òmìnìgbọ̀n*,

Table 3: An Outline of Noun Sub-classes

I. co-nouns
  1. pre-nouns
  2. inter-nouns
  3. after-nouns

II. pluralizers
  1. a-pluralizers
    a. ǫ-singulars
    b. o-singulars
  2. e-pluralizers
    a. a-singulars
    b. ǫ-singulars
    c. o-singulars
  3. i-pluralizers
    a. e-singulars
    b. ę-singulars
    c. ǫ-singulars
    d. o-singulars
    e. u-singulars

III. serials
  1. numerals
    a. digits
    b. macro-numerals
    c. distributives
    d. collectives
  2. counters
  3. ordinals
    a. dilexic
    b. trilexic
    c. tetralexic
  4. pro-numerals
    a. demonstratives
    b. non-demonstratives

IV. clitics
  1. placives
  2. pejoratives

Table 3 cont.

V. basives
  1. adverbials
  2. semi-adverbials
  3. loan-words
    a. contemporary (foreignisms)
    b. colonial
    c. pre-colonial
  4. infantilisms
  5. macro-names
    a. native
    b. foreign

VI. echoics
  1. elevators
  2. retractors
  3. others

VII. locatives
  1. spatial
  2. temporal
    a. micro-words
    b. compounds
    c. clausals

VIII. vocatives
  1. addressives
  2. appellatives
    a. optional
    b. obligatory
      i. anthroponyms
      ii. toponyms
      iii. chrematonyms

Table 3 cont.

- IX. stereotonics
  - 1. verbals
    - a. agentials
    - b. gerunds
    - c. instrumentals
    - d. circumfixatives
  - 2. indefinitives
    - a. digital
    - b. non-digital
      - i. personal
      - ii. impersonal
- X. compounds
  - 1. salutatives
  - 2. non-salutatives
    - a. infixative
      - i. dilexic
      - ii. trilexic
    - b. infixless
      - i. lexal
      - ii. predicantial
- XI. haploids
  - 1. monobases
    - a. suffixed
    - b. suffixless
  - 2. dibases

"divining tree". Its initial vowel is one that is found only in nouns and in exclamatives, while its tetrasyllabic structure is one that is found only among nouns and adverbs. Combining these two considerations, we arrive, by elimination, at the inevitable conclusion that the word can be neither an adverb nor an exclamative and so must be a noun. (In this regard, an archetypical noun like *òmìnìgbọ̀n* differs from a typical noun like *ọ̀tá*, "speech", which not only could be a pronoun, particle, or exclamative but actually is a verb, meaning "he talks", as well.)

Most nouns are either disyllabic or trisyllabic. (Although nominal monosyllables are encountered, they occur solely as allologs of normally disyllabic nouns. Examples are *-ò-*, the variant of *òbhí*, "child", which occurs in the phrase *è'òmẹ́n*, "greetings, my son"; and *píọ̀*, the free alternant of *èpíọ̀*, "soccer goal", in utterance-initial position).

In the list of constructional types that follows, R stands for root, Ru for autothetically replicated root, Rl for allothetically replicated root, Rh for heterothetically added root, P for prefix, S for suffix, Su for a suffix identical with the suffix preceding it, Sh for suffix different from the suffix preceding it, N for contained noun, Nu for autothetically replicated noun, Nl for allothetically replicated noun, Nh for a noun radically distinct from the noun preceding it, Ns for a noun with a holosyllabic suffix, Nuv for a noun homocephalic with the preceding verb, V for a simple verb, Vs for a complex verb, and VL for a verb different from the verb preceding it.

The commonest pattern for disyllabic nouns is, of course, PR, as in *ètó*, "hair". The next commonest is PRS, as in *ọ̀bháàn*, "person". Five other patterns, each of which is extremely rare, are: PRRh, as in *ébo̍*, "European", from *ó-yì-bó; PRRhS, as in its allolog *ébo̎*, idem, from *ó-yì-bò-HÁ; PRRhSSh, as in *ọ́nīí*, "that", from *ọ́-nè-Hì-HÁ; PRSSh, as in the nick-name *ọ̀gúọ̍*, "Stupid", from *ò-gúọ-HÀ-HÁ (where -HÀ- and -HÁ, though metaphonemically identical, may be presumed to be phonemically discrete); and PRSShSh, as in *óghè*, "a lie", from *òHóòghòrlì*, idem.

Among trisyllabic nouns, the two commonest patterns are, of course, PRR and PRS. But so many other patterns occur with reasonable frequently that it seems worthwhile to list all of them, as in Table 4:

Most tetrasyllabic nouns are agentials like *ọ̀dọ̀làagbọ̀n*, "reformer", with the pattern PVsN; circumfixatives like *ùkpọ́lọ́ọ̀bhẹ̀n*, "magnitude", with the pattern PVsShSh; and echoics like *àtàlàkpà*, "leopard", with the pattern PRSSh.

Pentasyllabic nouns tend to have the same patterns, except that the nouns contained in them are generally trisyllabic rather than bisyllabic in structure. Typically pentasyllabic, however, are adverbial nouns like *èsóghósóghó*, "rattle", with the pattern PRSRuSu.

Hexasyllabic nouns are few in number and heterogeneous

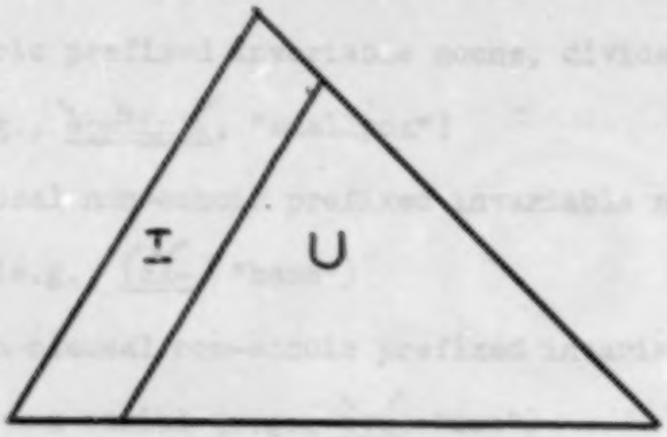
Table 4: Noun Structure

type	pattern	noun	meaning
micro-word	PRRu	íyéyé	old woman
	PRRl	óbhìbhíẹ	mamba
	PRRh	úmọ̀nbìẹ	fecund woman
	PRRuS	èkpókpóò	fire-cracker
	PRRlS	èsíasíò	Bristle-bill
	PRRhS	òyòbhìẹ́	night-hunt
	PRS	ọ́sẹ̀lẹ́	cricket
	PRSSh	àsákàá	road-ant
	PRSRuSu	átèétèé	grass-hopper
	PRSRhSh	ákòóbíẹ̀	fertility figure
compound	NNu	ùgbúùgbẹ́	crucifix
	NNl	èyẹ́ẹ̀yẹ̀	foolishness
	NNh	ékúàbọ́	upper arm
phrasal	PVN	ìbòowà	house-building
clausal	VN	ọ̀bòowà	house-builder
verb-derivative	PVSSh	ùgáàbhẹ̀n	service

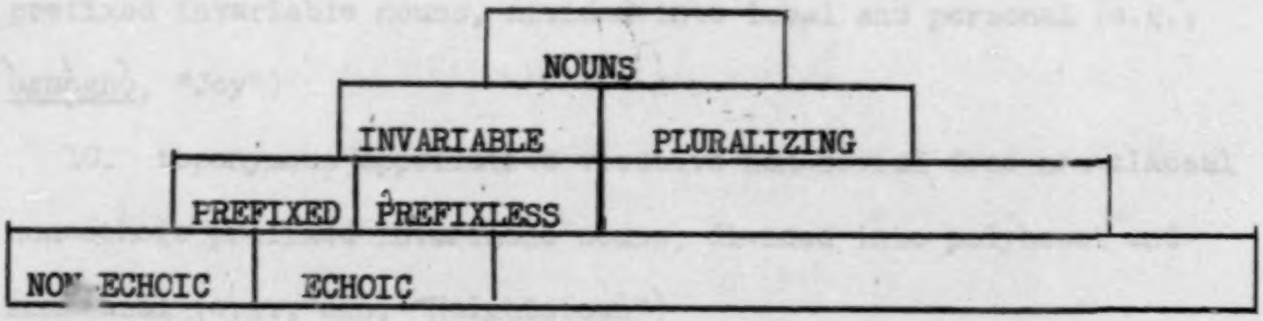
as well as opaque in structure. Fairly representative is the word ílólégúùnmàzà, "hunch-back", with the pattern PRRuRhSRhSh, which may actually be a compound consisting of one noun with the pattern PRRuRh (cf. ìzàzàkó, "All-Day Runner") and another with the pattern PRS (cf. íkòló, "earth-worm").

All nouns of over six syllables are stemless macro-words consisting of predicants used as lexemes; and most of them are homocephalic as well. Three examples are: with seven syllables, àgùkísìbhín'ògìe, "the evening star", with the pattern VNVhsNh; with eight syllables, ámánhékpòlíkpóòle̍ghóò, "early morning", with the pattern VVhVhsNsuvNh; and with nine syllables, what appears to be the longest word in Bini — àrlò'írlòfíèkhọ̀'èwèríẹ́, "repentance", with the pattern VNuvVhNhsVhs.

Because of their variety and inclusiveness as a class, nouns are the most difficult of all Bini lexeme-groups to sub-classify. To be sure, it is possible, if one insists on being puristically structural, to produce a strictly dichotomous sub-classification of nouns that arranges nearly all noun-groups in a neat formal hierarchy. Since we will not here follow such a severely binary arrangement in our actual presentation of noun-groups, we will not attempt to present the entirety of such a structural hierarchy. But, as an example of method, it may prove instructive if we do present an Immediate Constituent Ananlysis of nominal sub-classes, skewed in such a way as to illustrate the level-by level status of only one small nominal group (in this case, phrasal names such as the toponym ùrhòníìgbè, "Ten Gates"). In graphic terms, our skewed presentation will differ from a complete binary presentation in that it bifurcates only one rather than both products of each successive bifurcation in the hierarchy and so gives us only one leg of the classificatory triangle or one wall of the taxonomic pyramid instead of its totality. We may diagram this incompleteness as follows,



where I stands for illustrated dichotomies and U for unillustrated dichotomies. To illustrate the skewing in a more detailed manner, we may resort to a graphic ziggurat or step-pyramid, where the immediate contituents of each block are represented by the two blocks directly under it:



While the above diagram has only four levels, a complete one would have eleven, as follows (where, in each case, the noun ùrhòníìgbè may be taken as illustrative of the first of the two sub-classes into which each class is divided):

1. nouns, divided into invariable and pluralizing (e.g., *èmọ́n*, "children")

2. invariable nouns, divided into prefixed and prefixless (e.g., *píọ̀*, "a goal in football")

3. prefixed invariable nouns, divided into non-echoic and echoic (e.g., *ògòlò*, "mantis")

4. non-echoic prefixed invariable nouns, divided into non-clausal and clausal (e.g., *èbhìinfí*, "smallpox")

5. non-clausal non-echoic prefixed invariable nouns, divided into free and bound (e.g., *ízÁ-*, "base")

6. free non-clausal non-echoic prefixed invariable nouns, divided into non-serial and serial (e.g., *èvá*, "two")

7. non-serial free non-clausal non-echoic prefixed invariable nouns, divided into vocative and locative (e.g., *èbháà*, "there")

8. vocative non-serial free non-clausal non-echoic prefixed invariable nouns, divided into appellative and addressive (e.g., *èbhàbhá*, "Dad")

9. appellative vocative non-serial free non-clausal non-echoic prefixed invariable nouns, divided into local and personal (e.g., *òghọ̀ghọ̀*, "Joy")

10. toponymous appellative vocative non-serial free non-clausal non-echoic prefixed invariable nouns, divided into polybasal and monobasal (e.g., *ùgò*, "Heightstown")

11. toponymous appellative vocative non-serial free non-clausal non-echoic prefixed invariable nouns, divided into phrasal and non-phrasal (e.g., *èkọ́ọ̀há*, "Bride's Camp".)

Quite aside, however, from such logical difficulties as calling place-names vocatives (which may be got round by pointing out that one can address a city), an exclusively structural classification of nouns is simply impractical, in that it straightjackets the data by disallowing useful phonic, syntactic, and semantic criteria.

A much more usable classification of nouns results from a more eclectic taxonomic approach, employing gradational criteria for its major subdivisions and a hierarchy of formal, syntactic, phonic, and semantic criteria for its minor subdivisions. While occasional overlapping of categories does inevitably result, with a consequent necessity for cross-references, the net result seems less rigid and more useful.

In these terms we begin by dividing nouns into co-nouns, micro-nouns, macro-nouns, compounds, and subphrases, following the hierarchy of lexemic grades outlined in Chapter 6. We then define co-nouns as bound nouns or nouns which can occur only in compounds with other nouns or in phrases beginning with particles. And we divide co-nouns into pre-nouns, inter-nouns, and after-nouns, according to the position which they occupy in the lexeme sequences in which they occur.

Sub-section 1: Co-nouns

Pre-nouns, in turn, may be divided into allologous and non-allologous types. Allologous pre-nouns may be further divided into co-liberal and co-bound types, depending on whether the noun or nouns with which they vary are free or bound. And each of these two types may be still further divided into mono-allologous and poly-allologous subtypes, depending on whether they have one or more than one allolog. When pre-nouns have one free and one bound allolog, they may be called amphi-allologous. An example of a mono-allologous co-liberal pre-noun is the numeral ìyÁ-, "score" (whose free form is ùgíe, "twenty"). An example of a co-bound pre-noun is the co-word *óbò-, "blossom",(whose allolog is the after-noun -óbò, idem). And an example of an amphi-allologous pre-noun is the locative ígbà-, "time" (whose free allolog is ùgbẹ̀n, idem and whose bound allolog is ùgbẹ́-, idem).

Inter-nouns are rare. An example of a co-liberal inter-noun is the locative -ẹ́vÁ-, "time" (whose free allolog is ẹ̀ghẹ̀, idem). An example of an amphi-allologous inter-noun is -ẹ́dẹ́-, "day" (whose free allolog is ẹ̀dẹ́, idem, and whose bound allologs are ẹ̀dẹ̀-, -ẹ́dẹ̀, and -òdẹ̀, idem).

Most after-nouns occur only after particles. An example of an after-noun that occurs solely after the particle èné, "the", is -ọ́khu̍à, "big one". An example of an after-noun that occurs solely after the particle èbhe̽, "in", is -ènía, "this way". Several after-nouns occur only after the much-used free nouns *ọ̀bháàn*, "person", and *èbhíìn*, "thing". An example of the former is the co-noun *-òrlóòhò*, "idleness", and of the latter the co-noun *-èsì*, "value", whose free allolog is *ẹ̀séè*, "good"). A few after-nouns occur only after other nouns. One such after noun-noun is the co-noun *-óbọ̀*, "hand" (whose free allolog is *ọ̀bọ́* idem) which occurs only after the pre-noun *àgÁ-*, "left". When after-nouns lack free allologs, it is difficult to establish their identity with any sense of assurance. Thus, for example, it is arguable whether a comparison of the two nouns *íhìehíe*, "black bean", and *ítèhíe*, "bitter tomato", justifies our abstracting from them an after-noun *-èhíe*, "plant". And when two co-nouns combine to form a compound which is the sole locus of occurrence for both of them, there is no way to distinguish them from a polysyllabic non-compound. (Thus, for example, since there is no way for us to know whether a noun like *éghúté*, "shore camp", is a bi-radical word or a bi-syllogous compound containing the basal nouns **égHÁ-*, "camp", and **úté*, "shore", we are obliged by the rule of intellectual parsimony to assume the former, merely because it is a simpler -- and therefore mre plausible -- explanation.)

Among micro-nouns, which are free in occurrence but do not contain any form more inclusive than a stem, sub-classes may be established largely on the basis of the differences between the various criteria of sub-classification. Thus, by purely paradigmatic criteria, all micro-words may be bifurcated into pluralizers and non-pluralizers; by derivational criteria, into prefixed and prefixless; by distributional criteria, into adverb-substitutes or exclamative-substitutes and non-substitutes; by phonic criteria, into echoics and non-echoics; and so on. By allowing these bifurcations to cross-cut one another, we arrive at the following eleven sub-classes:

1. co-nouns (see above)
2. pluralizers
3. serials
4. clitics
5. basives
6. echoics
7. locatives
8. vocatives
9. sterectonics
10. compositives
11. haploids.

Sub-section 2: Pluralizers

Pluralizers may be defined as nouns that inflect for plurality by changing a lower or more retracted prefix-vowel into a higher or more advanced prefix-vowel.

Aside from agentials, which remain a productive pluralizing infra-class, pluralizers as a sub-class seem to be almost as obsolescent as -en noun-plurals in English, there being only about 35 of them in Bini. (That they were once far more numerous is amply attested by internal evidence. And comparative evidence indicates that they were once the numerically dominant nominal sub-class.) Of these, at least 5 now have non-pluralizing allologs, as does the English noun fish, which may either add or omit the plural suffix.

Pluralizers may be divided into three types, according to the color of the plural vowel-prefix: a-pluralizers, e-pluralizers, and i-pluralizers.

a-pluralizers are a wholly fossilized group. Not only are they not productive, but even their a-prefix forms are in disuse for the ordinary plural function, rather as the English form kine is in regard to the noun cow. They are divisible into two sub-groups, each with but one member. The first sub-group, the o-singulars, is represented by the semi-compound *àkhìọbhàn*, "winner (in a game)", whose archaic plural, *àkhìabhàn*, now refers primarily to "innings (in a game)". The second sub-group, the o-singulars, is represented by the basal noun *obo*, "arm", whose archaic plural (though it remains the normal plural in Ishan) now means "branch" -- except when it is a co-noun (as in *ízábọ̍*, "shoulder"), where it functions as an invariable singular. A partial parallel for this sort of semantic splitting of paradigms is provided by the English noun staff, whose old plural, staves, has become a distinct lexical item with an innovative singular of its own.

The e-pluralizers are divisible into three sub-groups: a-singulars, ọ-singulars, and o-singulars. The sole member of the first sub-group is the basal noun *azen*, "witch", whose archaic plural, *ezen*, has almost wholly disappeared from colloquial use.

ọ-singulars, though no longer a productive type, are not yet fossilized. They have at least 15 members and may themselves be divided into three sub-types. The first and largest of these consista of frequently used nouns like *ọ̀mọ́n*, "child", *ọ̀tẹ́ẹ̀n*, "kinsman", and *ọ̀bháàn*, "person". And the third consists solely of the pro-numeral *ọ́nàn*, "this one", and its autothetic compound *ọ̀nọ́nnàn* (plural *ènénnàn*), "this very one".

o-singulars seem to be represented solely by the fossilized syllogous plural *ègìe-* (as in the clan-name *ègìésàn*, "rulers of Ishan") of the basal noun *ògìe*, "chief".

i-pluralizers are of five types: e-singulars, ẹ-singulars, ọ-singulars, o-singulars, and u-singulars. The sole e-singular among pluralizers now seems to be the semi-agential *érlòghà'è*, "youth (more specifically, an age-group responsible for road-building and other forms of heavy labor)". And the sole ẹ-singular is *ẹ́ghèlè*, "middle-aged man (subject to military duty)".

ọ-singulars are of two sub-types: agentials and non-agentials. The first of these groups is large and productive and is dealt with at length under macro-nouns, below. The second appears to have only two members — of which one may be spurious. The unexceptionable example is *ọ̀rlúè*, "co-wife (in a polygynous household)". The dubious example is *ọ̀bhókhàn*, "child", whose irregular plural *ìbìẹ́kà* may be suppletive and etymologically unrelated to it.

o-singulars number about 8 and include such frequently occurring nouns as *òbhí*, "offspring", *òkhúò*, "woman", and *òkpì'á*, "man".

u-singulars are fossilized and number only 2 -- the basal noun *ùkè*, "cripple", and the pre-noun *ùkpó-*, "cowrie-shell".

Sub-section 3: Serials

A nominal sub-class which resembles the pluralizers at least semantically is the serials. Serials are nouns that occur in series or replace nouns that so occur. They themselves may be divided into four infra-classes: numerals, counters, ordinals, and pro-numerals.

Numerals may be defined as nouns which can be arranged in series such that each numeral represents a number greater by one than its predecessor. In this regard they are logically similar to pluralizers, in that each plural form of a pluralizing noun represents a number greater by at least one than its singular form.

The first ten Bini numerals, here called digits, are listed, along with their allologs, in Table 5. Their allology is so extensive that it may be worthwhile to list the stems by themselves, since most of their seemingly endless variability is in their prefixes and superfixes:

1. kpa, kpan
2. va
3. ha, rla, a
4. nen, ni
5. sen, sA
6. Hehan
7. hinrlon

TABLE 5: Allologs of Numerals from One to Ten

full form	normal speech form	rapid speech form	after ènè, "the"	after ógì-, "order"	before itself	after ìwà-, "ten"	after arìa, "thousand"	after ẹdẹ̀-, "day"	after àkì-, "month"	before -ọrlẹ̀-, "day"	before èvá, etc.	between kẹ'e, "remains" and a numeral	semantic variants
ọ́kpá, 1			ọ̀kpà				Ákpá						ọ́kpán, "odd number"
èvá, 2				èvà	évà			Àvá	àvá				
èhá, 3			(ọkp-)ìlá	èhà	éhà	èrlá		Àhá	h̀á				
ènẹ́n, 4				ènẹ̀n	énẹ̀n			Ànẹ́n	ànẹ́n	ùní			
ìsẹ́n, 5			(ọ́v-) usén	ìsẹ̀n	ísẹ̀n				àsẹ́n			ésÀ	
è'èhàn, 6	éhàn			èhàn				Áhàn	Éhàn				
ìhínrlọ̀n, 7				ìhìnrlọ̀n				Àhínrlọ̀n	àhínrlọ̀n				ùhìnbhànrlún, "nine-day period"
èrlẹ̀nbhẹ̀nrlẹ́n, 8	èrlẹ̀nrlẹ́n	èrlẹ̀ẹ́n		èrlẹ̀nrlẹ̀n				Àrlùn- bhànrlẹ́n	èrlẹ̀nrlẹ́n				
ìhìnbhìnrlín, 9	ìhìnrlín	ìhlín		ìhìnrlìn				Àhìnrlín					
ìgbé, 10			ìgbè	ìgbè					àgbé		ìwÀ		

8. rlenbhArlA, rlunbhArlA

9. hinbhArlA, hunbhArlA

10. gbe, wA

The a-prefix in the numerals following the pre-noun aki-, "month" (whose free form is uki, "moon"), may well be, as Melzian suggests *, a survival of an older and more general system of prefix concord.

Among the maximal isolation forms of these ten numerals, three tone-patterns predominate: LT for disyllables, LTL for trisyllables, and LLLT for tetrasyllables. The disyllabic LT pattern holds not only for the numerals 2-5 and 10 but also for the higher numerals ùgíe, "twenty", ùrlí, "two hundred", and àría, "a thousand". The only disyllabic Bini numerals which do not have the pattern LT are ọ́kpá, "one", and ọ́gbàn, "thirty" (which, however, agrees in tone with the abridged isolation form of è'éhàn, "six"). With the exception of òwòrlọ́ọ̀, "eleven", all numerals beyond those already named are either compounds or clausals.

Representative homothetic numeral compounds are the distributives

èvéèvà,	"two by two"
èhéèhà,	"three by three"
ènéènẹ̀n,	"in groups of four"
ìsíìnsẹ̀n,	"in groups of five"

---

* in his undated typescript grammar

and the collectives

évèvá,	"both"
éhèhá,	"all three"
énènnẹ́n,	"all four"
ísìnsẹ́n,	"all five"

Representative heterothetic numeral compounds are *ìwèéwà*, "twelve" (from the co-logs of *ìgbé*, "ten", and *èvá*, "two"), *ìyéèvá*, "forty" (from the co-log of *ùgíe*, "twenty", followed by *èvá*, "two"), and *ùrlíèvá*, "four hundred" (from *ùrlí*, "two hundred", and *èvá*, "two"). When superfixed to the post-nominal stem *-eva*, therefore, it appears that the tone sequence LT means "multiplied by" while the tone-sequence TL means "added to".

Representative clausal numerals, here called macro-numerals, are the forms *èkésùgíe*, "fifteen", *ènẹ́n'ìíróo̍bhùgíe*, "sixteen", and *ọ́kpáyàn'ùgíe*, "twenty-one". The first of these appears to be derived from a nominal prefix *e-*, the perfective form of the verb *kẹ'e*, "to remain", the inter-lexemic allolog *-esA-* of the numeral *ìsẹ́n*, "five", and the numeral *ùgíe*, "twenty"; the second from the numeral *ènẹ́n*, "four", the co-verb *-Hi-*, "not", the verb *re*, "to be in", the postpositive pronoun *ọ̀rlé*, "it", the particle *èbhe̽*, "in", and the numeral *ùgíe*, "twenty"; and the third from the numeral *ọ́kpá*, "one", the jussive [illegible] of the verb *yaan*, "to be over", and the numeral *ùgíe*, "twenty". Apparently the clausal for "fifteen" literally means "there remains five of twenty"; for "sixteen", "four is not in twenty"; and for "twenty-one", "let one be over twenty".

The numeral for 25 is constructed like that for 15; the numerals for 17, 18, 19, 26, 27, 28, 29, and so on, like that for 16; and the numerals for 22, 23, 24, 31, 32, 33, 34, and so on, like that for 21.

Counters are a monotypic group of serials which differ from numerals in function. While the chief function of numerals is to serve as enumerative modifiers of preceding free nouns, the sole function of counters is to concatenate numbers in counting series. Thus, while the numeral *ọ́kpá* can modify a non-numeral, as in the heterothetic compound *òbọ́ọkpá*, "one hand", the only context in which the counter *òwó* can appear is before the series *èvá*, *èhá*, *ènẹ́n*, etc, where it is the first link in the enumerative chain "one, two, three, four".

Whether or not *òwó* is allologous with *ọ́kpá*, it is difficult to say. The probable allology of *ìgbé* and *ìwÀ-*, "ten", makes it seem at least possible. It seems almost certain, however, that *òwó*, is allologous with the first lexeme in *òwòrlọ́ọ̀*, "eleven", although the interpretation of the form *-rlọọ* remains obscure. It may be itself a variant of the phrase *rọ́ọ̀ọ́*, from *re*, "to be in", and *ọ̀rlé*, "it", in which case *òwòrlọ́ọ̀* may mean "one is in it (in addition to the ten)", just as English eleven means "one left over (after ten)".

Since one-lexeme categories are nuisances, it is tempting to treat *òwó* merely as an aberrant bound allolog of *ọ́kpá*, which we can do if we are willing to overlook the inconvenient phonological fact that *òwó*, unlike all other pre-nouns, is separated from its sequent noun by a major disjuncture.

Ordinals are serials whose first element is the pre-noun *ógì-*, "rank" (perhaps an allolog of the basal noun *ògìe*, "chief", in which case it should be ı -written *ógìA-*) and whose second element is a numeral with the fixed tone-pattern L→. Three structurally heterogeneous examples are:

ógìevà,	"second"
ógìiwèvà,	"twelfth"
ógìekèsùgìe,	"fifteenth"

A taxonomic problem posed by the ordinals is whether to treat them as compounds or as subphrases. Their linear noun-plus-noun structure inclines one to the former interpretation, but the uniformly predictable (and therefor non-lexical) tone of the contained numerals in them argues for the second. A further argument in favor of interpreting ordinals as compounds is that even grammemes of more than subphrasal grade may be contained in lexemes of less than subphrasal grade (e.g., in agentials). But a still stronger argument in favor of interpreting ordinals as subphrases is that it is not merely their terminal components whose tone is predictable but their totalities,, so that we can, with minimal ambiguity, write their intonational formula as TL→, where T refers only to the first syllable and L→ to all succeeding syllables.

Pro-numerals are serials which resemble numerals formally and either numerals or ordinals syntactically but which differ from both distributionally in their insusceptibility to seriation and semantically in their imprecision of numerical reference. Of all serials, the ones they least resemble are counters. There are apparently only five pro-numerals in Bini, whose isolation-forms are as follows:

ọ́nàn,	"this"
ọ́nìín,	"that"
ọ́bhèhé,	"other"
èsó,	"some"
èhía,	"all"

After non-serial nouns, pro-numerals regularly lose the color of their vowel-prefixes, becoming *-Ánàn* or *-Àsó* by the same process of reverse elision that we observed above in the co-numerals *-Ákpá*, *-Àvá*, etc. In this regard they resemble the clitics, a group of semi-basive nouns treated below.

The fact that the only two vowel-prefixes exhibited by pro-numerals are *ọ-* and *e-* naturally leads one to suspect that all five forms are fossilized pluralizers of the paradigmatic type *ọ̀mọ́n:èmọ́n*, the first three having generalized the singular prefix and the last two the plural prefix. But, whatever their historical relationships, we can call the ọ-prefixatives demonstratives and the e-prefixatives non-demonstratives.

Sub-section 4: Clitics

Clitics are nouns that may lose the color of their vowel-prefixes after other nouns. A few, such as the placives èbháàn, "here", and èbháà, "there, show obvious distributional and semantic parallellism with pro-numerals like ọ́nàn, "this", and ọ́nìín, "that", and can readily substitute syntactically for phrases like èkèénàn, "this place", or èkèénìín, "that place". (But for another way to interpret these two words, see below under Locatives.)

Others, such as the pejoratives -Àkhọ̀ọ́, "evil", and -Ákàn, "mereness", never occur in isolation and so are, like adverbs, of unknown vowel-prefix color.

A few, such as the haploid noun òkó, "companion", or the names of clans, like úhẹ̀, "Ife Clan", are cliticized into the co-nouns -Àkó and -Áhẹ̀ only after the exclamatives kóòyọ̀ọ́, "hi there!" and lá, "hail!", respectively.

In addition, there are some pejoratives, such as édàn, "evil", and even some compounds like ẹ̀sẹ́ẹ̀sé, "goodness", or ùgbúùgbẹ́ẹ̀hía, "always", which occasionally become clitic for reasons not readily apparent.

Sub-section 5: Basives

Basives are nouns whose isolation-form is usually prefixless but whose post-lexemic form normally begins with *è-*. Basives may be divided into five sub-classes: adverbials, semi-adverbials, foreignisms, infantilisms, and macro-names.

Adverbials are nouns which may be converted into adverbs merely by metaphonemicizing their optional vowel prefix *e-* into an obligatory prefix *À-*. An example is *(è)kpékúkpékú*, "rat-poison", which, as an adverb, has the form *-Àkpékúkpékú*, "convulsive". In such cases, it is not clear whether the adverb is derived from the noun, the noun from the adverb, or both from a hypothetical protocapital.

Semi-adverbials are nouns which are structurally or syntactically similar to adverbials but which either do not exist as adverbs or exist as adverbs formally discrepant from the corresponding nouns. Examples are *(è)mùnẹ̀múnẹ́*, "fire-fly", whose corresponding adverb *-Àmúnẹ́múnẹ́*, "flickering", has a different tone-pattern; *(è)kẹ́tẹ́kẹ́tẹ́*, "ass", which has no corresponding adverb; and *(à)kèrlèkéèrlè*, "water-snail", whose prefix-vowel is irregular in color.

Although nearly all adverbials and semi-adverbials seem to have the linear structure PRSRuSu most characteristic of adverbs, a few, like *èsùghùsúùghù*, "owl", appear to insert an infix between Ru and the Su, producing the modified pattern PRSRuISu. The fact that an unexpected high tone is also inserted into a stem that otherwise seems to have the stereotonic pattern L → only serves to compound the analytical difficulties presented by this group. Though no explanation seems wholly satisfactory, perhaps the most plausible is that such nouns are actually transformations, by a process of tone-transfer *, of older forms like _*èsùghùúsùghù_, where the _-u-_ is assimilated from _*-e-_ and the entire form is an allothetic replication of a still older from _*èsùghù_, structurally analogous to nouns like _èkhàrhà_, "umbrella", whose analytical formula is simply PRS. (A rough parallel for such a construction is offerred by replicated nouns like _èdẹ́ẹ̀gbéèdẹ́ẹ̀gbéè_, "every day".)

Foreignisms are basives which are either of foreign origin or based on foreign structural models. Examples are: _tòlótòló_, "turkey", from a Yoruba noun of identical form; _kókómẹ̀mẹ̀_, "cucumber", which may come from the English word; and _bàsàbàsà_, "latex shrub", of unknown provenience. While most of them are polysyllabically replicative and nearly all of them are echoic, a few relatively short or non-repetitive forms occur, such a _píọ̀_, "football goal" (from English), or _líkìbá_, "timber-tree" (of unknown origin). One foreignism, _kpẹ̀tẹ́ẹ̀lẹ̀_ (or _kpàtáàlẹ̀_), "small faeces", takes _i-_ rather than _e-_ in utterance-medial position.

Older loan-words are the antithesis of basive foreignisms in one sense but show structural parallellism with them in another. More precisely, the variability of the color and intonation of their vowel-prefixes contrasts markedly with the prefixlessness of the basive borrowings; yet both types of loan-words, from a derivational standpoint, contrast sharply with native nouns, which tend to cleave steadily to one vowel of fixed tone and color prefixed to each of their stems. Examples of the prefixational instability of older loans are: *àgèlè* or *ìgèlè*, "gun-shot" (from Danish *hagel*, idem); *èsáàrlà*, *àsáàrlà*, or *ọ̀sáàrlà*, "saw" (from Portuguese *sierra*, idem); and *árlábà*, *àrlábà*, *érlábà*, or *èrlábà*, "rubber", from English.

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* (See Vol. I, Chapter 2, Section 7)

The uniform *e-* prefix of English loan-words of intermediate age, as in *ètá'è*, "neck-tie", and *èsọ́ọ̀sì*, "church", suggests the possibility that this most productive of all Bini noun-prefixes is derived from, or at least influenced by, the English "indefinite article" *a*. If this surmise is valid, it may help explain the regular appearance of this vowel-prefix in the utterance-medial form of all basive nouns in Bini.

Infantilisms are terms of address normally used only by children speaking to older members of their family. Examples are *bàbá*, "Daddy", and *màmá*, "Mommy", both of which add the prefix *e-* in utterance-medial position. *bàbá* may come either from the homomorphic Yoruba word of the same meaning or from the adult Bini vocative *èbhàbhá*, "Dad". *màmá* may come from English but need not be assumed to have done so.

Basive names, here called macro-names, are, when of foreign origin, invariably derived from non-nouns — either adverbial lexemes or supra-lexemic constructions. An example of a basive noun derived from an adverb is the royal name *(è)hẹ́nnẹ́ndẹ́n*, "Tranquil One". An example of a basive clausal noun is the personal name *(è)nìyéèmàán*, "Where I Am Is Fine", derived from the ellipical predicant *(èhè)nìyéèmàán*, idem (although it is always possible that the zeroing of *èhé* is a phonic rather than a grammatical phenomenon).

A typical basive name derived from a foreign noun is the euphonic noun *(è)zọ́ọ̀nì*, "John". Almost as frequent in occurrence is the dysphonic type represented by *(è)stívíìn*, "Stephen". Somewhat rarer and more difficult to classify is the dysphonic name *álbáàt*, "Albert", which must be called dysmorphic as well if the initial vowel is not interpreted as a prefix.

Sub-section 6: Echoics

Echoics are a nominal sub-class which are phonically similar to adverbials but which differ from them in being, for the most part, shorter and lacking in the typically adverbial stem pattern ABAB (as in si̍gósígó, "tall and thin", where A represents one stem-morpheme and B another.) In more positive terms, an echoic may be defined phonically as a noun which repeats a sound or group of sounds and semantically as a noun which characteristically refers to an organism or artifact capable of producing a repetitive sound, though whether echoics represent an actual attempt phonesthetically to reproduce that sound is open to argument. An archetypical echoic is the noun àtàlàkpà, "leopard", in which every syllable has the same vowel and the same tone, only the non-syllabics being different from one another.

In quantitative terms, echoics may be classified in a progressive hierarchy of vocalic and syllabic expansion, as follows (where S stands for syllable and V for vowel):

1.	2S2V:	èdé,	"many-tendrilled creeper"
2.	2S3V:	ùgúù,	"vulture"
3.	3S3V:	ọ̀ghọ̀rlọ̀,	"trap"
4.	3S4V:	àkpáàkpá,	"spider"
5.	4S4V:	òrlòbòtó,	"hippopotamus"
6.	4S5V:	ùghùunghùnbhùn,	"tree-stump"

If we may interpret mono-vocalic semi-adverbials as echoics, then we can extend our hierarchy by two more stages, as follows:

7. 5S5V:	ètèbètébé,	"water-skater"
8. 5S6V:	èkèrlèkéèrlè,	"water-snail"

In purely phonic terms, we may re-classify echoics prosodically into (metaphonemically) monotonic and ditonic types, as follows:

1. ògòlò,	"mantis"
2. èbéèbé,	"leafiness"

Alternatively, we can obtain a slightly longer series by dividing echoics into monovocalic, divocalic, and trivocalic types according to the number of different vowel-colors they exhibit, as follows:

1. monovocalic:	ọ̀ọ̀dọ́ọ̀gbọ̀,	"bush-cane"
2. divocalic:	ùkòghòbòzò,	"Latham's bush-fowl"
3. trivocalic:	èkpàkpàhúnbhàngàn,	"scorpion"

Still another way to classify echoics is in terms of the lexemic grades to which they belong, ranging from co-words through words and compounds to subphrases, as follows:

1. co-word:	-ákà,	"moderation"
2. micro-word:	òlógbò,	"cat"
3. macro-word:	hẹ̍nnẹ́ndẹ́n,	"Peaceful"
4. compound:	óbòóbò,	"flower"
5. subphrase:	ọ̀bìọmọ̀n,	"parent"

A final method of classifying echoics is notional and depends on the referential category to which each one belongs. In these terms, we may re-group echoics, in rough order of the frequency of their occurrence, as follows:

1.	animals:	àgbákàrlà,	"crocodile"
2.	plants:	òhóòrlò,	"paw-paw"
3.	diseases:	òtòrló,	"diarrhea"
4.	nature:	ẹ̀zẹ́ẹ̀zẹ́,	"swamp"
5.	artifacts:	ódóòdó,	"scarlet cloth"
6.	persons:	èyèyé,	"old woman"
7.	miscellany:	òwòwò,*	"heat"

Two small but highly specialized echoic infra-classes are what we shall here call elevators and retractors. An elevator is an echoic with the tone-pattern L → which has an allolog with the tone-pattern T → . An example is the noun ùdùdù, "lump", whose pre-nominal variant is údúdú-, idem. (Outside the noun class, it naturally reminds us of adverbs like bẹ̄tẹ̀ẹ̀, "big", whose high-tone allolog is bẹ̍tẹ́ẹ́, "fat".) A retractor is a noun whose commoner allolog contains a repeated front vowel and whose rarer allolog contains the corresponding back vowel repeated the same number of times. An example is the numeral ìhìnbhìnrlín, "nine", whose free but obsolescent variant is ùhùnbhùnrlún, "nine-day week". (Compare the verb gi, "to allow, whose allolog before back vowels or labial consonants is gu-, idem.)

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* For reasons still unclear, the favorite echo-vowel among echoics generally and animal-terms particularly is o, as in the derogatory term òlógótóògó, "cur".

Sub-section 7: Locatives

A nominal sub-class which resembles adverbs in a different way is the locatives. While adverbials resemble adverbs structurally and echoics resemble them phonically, locatives resemble them syntactically. More precisely, locatives are nouns that occupy the same distributional slots -- after verbs or verb phrases -- that adverbs do. Semantically, locatives are lexemes that locate objects or events in space or time. If their primary reference is to space, they are here called spatial; if to time, temporal.

Representative spatials are the clitic nouns èbháàn, "here", and èbháà, "there". (See above, under Clitics.) Representative temporals are the non-clitics ẹ́rlẹ̀, "today" and ákhuẹ̀, "tomorrow".

Temporals are much more numerous than spatials and include not only the micro-clitics ígbà, "time", and èwáàn, "now", but also such compounds as the amphithetic clitic ùgbúùgbéèhía, "always", the infixed clitic ùsínsín'ábhùnsìn, "since", and the unusual autothetic clausal critic èdẹ́ẹ̀gbéèdẹ́ẹ̀gbéè, "daily".

Sub-section 8: Vocatives

A nominal sub-class functionally analogous to locatives is vocatives. Vocatives are nouns that fill syntactic slots normally occupied by exclamatives. They are of two types: obligatory and optional. Obligatory vocatives are nouns that can be used only as terms of address. Examples are the informal kin-terms *èbhàbhá*, "Dad", and *èmàmá*, "Mom" (contrasing with corresponding reference terms *érhá*, "father", and *íyé*, "mother"), which we shall hereafter term addressives.

Optional vocatives are nouns that may be used either as terms of address or as terms of reference. All personal names belong, at least distributionally, in this category, which we shall hereafter refer to as appellatives. Appellatives can be classified in any of three ways: formal, functional, or semantic. The formal method ranks them according to their lexemic grade, the functional method according to their ability to serve as non-appellative nouns in anonomastic contexts, and the semantic method according to their denotations or connotations.

In gradational terms, appellatives may be initially divided into micro-nouns and macro-nouns. And the micro-appellatives may in turn be sub-divided into elliptical and non-elliptical types. An example of an elliptical micro-appellative is the boy's name *ode*, "Road", which is probably an abridgement of the predicantial name *ábíẹbhóodẹ̀*, "Born on the Road", or a semantically equivalent macro-appellative.

In functional terms, appellatives may be alternatively divided into obligatory and optional types. Optional appellatives may also be used as common lexemes or as free grammemes (that is, as grammemes not contained in lexemes). Examples of such appellatives are:

type	form	appellative meaning	common meaning
adverb	hẹ̌nnẹ́dẹ́n	Man of Peace	peaceful
exclamative	ìyáàrè	Safe Return	safe return!
Micro-noun	ẹ̀dẹ́	Day-Born	day
compound	ẹ̀kúẹsín	glutton	horse's belly
clausal	èzènọ́fu̍a	White Crayfish	crayfish which is white
predicantial	òsàahọ́n	Blessing	God hears
sub-phrase	ọ̀dàayọ̌n	Wino	he drinks palm-wine

In semantic terms, appellatives may be classified either denotatively or connotatively. A denotative classification is referential in nature and groups appellatives according to the nature of their apellata -- that is, of the objects to which they refer. Such a referential grouping of appellatives is illustrated in Table 6, where the appellata are divided into three types: anthroponyms (names of persons), toponyms (names of places), and chrematonyms (names of things).

To some extent, of course, assignment of any subtype of referent to a type is arbitrary. Thus, for example, celestial bodies are sometimes treated as persons, sometimes as places, and sometimes as

Table 6: Appellatives Classified by their Objects of Reference

type	reference	form	literal meaning	effective meaning
I. anthroponyms	1. commoners	ọ̀dẹ́	way	Born on the road
	2. clans	ìsò	sky (?)	Celestial
	3. kings	óhùan	cleanness	Pure One
	4. spirits	ọ̀mọ́n ìhòó	a child I want	Fertility Spirit
	5. deities	ògún	blacksmith	God of War
II. toponyms	6. stars	ẹ̀gúẹ	hoe	The Dipper
	7. rivers	ọ̀khùáhẹ̀	let parrots not breathe (?)	Magician (?)
	8. districts	ógbè	high divinatory rank (?)	Royal Quarter
	9. towns	ẹ̀dó	(the best) place (?)	Benin
	10. regions	ésàn	bush (?)	Ishan
III. chrematonyms	11. generations	gháàbíọnàn	who bore this?	great-great-grand-children
	12. animals	òsà'íkpèé	god doesn't play	Wood-Dove
	13. plants	ùgùọ́màan'ífìan	you needn't help an old man cut it	soft wood
	14. nature	ẹ̀gbèenọ̀ọgbìfíe	beater of the bush	afternoon harmattan
	15. periods	ámánhékpòlì-ikpóòléghòò	the sweepings aren't yet swept out	early morning

Table 6 cont.

type	reference	form	literal meaning	effective meaning
III. chrematonyms (cont.)	16. tools	ghẹ́ẹ̀khùeebhẹ́n	don't touch me	the trigger of a trap
	17. clothing	à'íbànnúanfòó	one is not fully undressed	undershirt
	18. ornaments	à'ífìan'ọ́bhān	they don't come off (?)	artificial jewel beads
	19. charms	àrlò'írlòo-fìékhọ̀'èewèríẹ	one reflects and changes	repentance

things. And names like the river ọ̀khùáhẹ̀ are diachronically variable in the sense that they are thought originally to have represented Bini heroes who were first elevated to godhood and later transmogrified into streams or other terrestial phenomena.

A connotative classification of appellatives, on the other hand, groups them according to emotive criteria -- that is, by the behavioral effect the appellatives themselves seem to have on the interlocutors involved. When the emotional effect is positive, we shall here call them eulogs; when, negative, dyslogs; and when neutral, mesologs.

Eulogs themselves may be divided into two types: titles and praise-names. Titles differ from praise-names in being more formal, requisite, and permanent. In contrast, praise-names tend to be individual, optional, and ephemeral. A familiar European example would be Frederick II of Hohenzollern, whose title was King of Prussia but whose praise-name was "The Great". A Bini analog is Akenzua II, of Eson, whose title is ọ́béèdó, "King of Benin", but whose praise-name is (among others) the semi-adverbial àkpọ̀lọ̀kpọ́ọ̀lọ̀, "Great One".

Other representative praise-names are the co-nouns -óbu̍à, "Almighty" (applied to God), and -útì, "famed" (applied to the Chief of Ijebu Quarter). Persons, however, are not alone in receiving praise-names. Places and things may also be given laudatory appellations, such as the compounds íyộọmọ́n, "Mother of Children" (applied to the River Okhuo) and ògíoòhá, "Lord of the Bush" (applied to the leopard).

In most cases, the praise-name is not added directly to the name of the referent but constitutes the head lexeme in a postpositive nominal phrase introduced by the particle èné, "the", as in the compound phrase níìsò nóòrhọ̀, "Rainy Sky" (applied specifically to King Akenzua).

Mesologs may be divided into names, brachynyms, and periphrastics. Names are the simplest, most direct, and most common appellations for people and other referents. In this respect they contrast with both brachynyms, which are abridged substitutes for names, and periphrastics, which are extended synonyms for names.

Structurally, names can be divided into six types according to the number of lexemes contained in them: monolexic, dilexic, trilexic, tetralexic, pentalexic, and hexalexic. An example of each of these six types follows:

1.	èbhúù,	"Mist"
2.	ẹ̀dẹ́ẹ̀gbé,	"Day breaks"
3.	ènọ́bákhàárlè,	"The King has spoken"
4.	àmẹ̀n'ígbàárlò,	"Water won't strike the face", i.e. "rain-hat"
5.	òkúo'ígbọ̀móòtọ̀'è,	"War can't kill the inhabitants", i.e., "escape-route"
6.	kìríkàkhéédé'úhà'è,	"Both pot and rope have fallen into the well", i.e., "a mother who has died giving birth to a still-born child"

Of these six types, the commonest are the dilexic, trilexic, and tetralexic types, which are illustrated in greater detail in Table 7. It is interesting to note that, among the monolexic names, nouns, adverbs, and exclamatives appear, but pronouns, verbs, and particles do not.

In historical terms, names can be reclassified into two groups, native and foreign, according to what is known or surmised about their origins. Examples of this etymological contrast are listed in Table 8. Here it is interesting to note that, while many anthroponyms and toponyms are of foreign origin, almost no chrematonyms seem to be.

Brachynyms are few in number and are most readily classified historically, in terms of their sources, into Edo and English types. A representative Edo type of brachynym is *ẹ̀dẹ́*, "Day", which almost certainly comes from a longer endo-grammemic noun like **àbíẹ̀ẹbhẹ́ẹ̀nbhẹ̀dẹ́ẹ̀kì*, "I was Born on Market Day". In a few cases we not only have longer names coexisting with the brachynyms but actually have several such names, from any one of which the brachynym could have been derived. An example is *ọ̀mọ́*, "Child", which may stand for:

1.	*ọ̀mọ́ọ̀nnọ́n*,	"It Is a Child (that Brings Happiness)"
2.	*ọ̀mọ́ọ̀nzùúwà*,	"A Child Brings Prosperity"
3.	*ọ̀mọ́ọ̀nsẹ̀ẹ́fẹ̀*,	"A Child Is Better than Wealth"
4.	*ọ̀mọ́ọ̀nsìíghó*,	"A Child Is Better than Money"
5.	*ọ̀mọ́ọ̀nrlùúyì*,	"A Child Is an Honor"
6.	*ọ̀mọ́ọ̀nrlọ̀ọ́ghọ̀*,	"A Child Is (a Source of) Respect"
7.	*ọ̀mọ́ọ̀nrlọ̀ọ́ghẹ̀*,	"A Child Is the Beginning (of Good Fortune)"

Table 7: Macro-names Illustrated in Terms of the Lexemic Class to Which their Constituent Lexemes Belong

(In the marginal acronyms, P stands for pronoun, N for noun, A for adverb, V for verb, T for particle, and E for exclamative.)

type	name	meaning
NN	ẹ̀kúẹsín	Horse-Belly (i.e., glutton)
NA	ẹ̀kóòbẹ̀tẹ̀	Big-Belly, Fatso
NV	òosàahọ́n	God hears (prayers for children)
VN	sókpọ̀ọ́nbá	Omit the King (from execrations)
NVN	ọ̀mọ́ọ̀nrlúyì	A Child is an Honor
NTN	ọ́bànóòsà	Godly King
NVV	òosà'íkpèé	God Can't Sing (more sweetly)
PVN	gháàbíọọnà	Who Bore This (batch of children)?
VNN	mún'e̍gbẹ̀ẹ́dòó	(I am) Ready for Benin
VNV	ìmùẹntíìnyàán	I Have Faith
VPN	ọ̀sẹ́ẹmẹ̍ẹ̀ndẹ́	My Time Has Come
VVN	àláàgbòodẹ̀	Road-Block
VVV	àtáàghíimùaan	Proclaimed and Undebatable (prophecy)
VTN	ábíẹẹbhóodẹ̀	Born on the Road
TNV	lòbọ̀ọtọ̀lọ́	Itchy-Palm (i.e., greedy child)

Table 7 cont.

type	name	meaning
TVV	nìyéèmàán	Where I am is Fine
NPVN	ọ́ghòbhẹ́ẹ̀nmàanbhẹ́n	My Own is Good for Me
NVPN	bòsàarlúūbhẹ̀nsé	God Has Done Well by Me
NVVP	bòsàarhìéēmẹ́n	God Gives Me (children)
NVVN	ọ̀bìọmọ̀ọn'írìebhíìn	Hungry Parent (i.e., a bogey)
NTVN	ẹ̀mùnnọ̀ọmùn'ẹ̀rhán	Tree-Catcher (i.e., a forest creeper)
NTVV	ọ́kàanọ̀ọ́máanwó	Unripe Corn (i.e., small children)
VNVN	àgùúkìisìbhìn'ógìe	The Moon's Rival (i.e., Venus)
VNVV	ùgùọ́mà'ẹ̀ẹ'ífìan	An Old Man Can Cut It (i.e., soft wood)
VVVP	ìghẹ́ẹ̀khùeebhẹ́n	Don't Touch Me! (i.e., a trigger)
VVVV	à'íbànnùaáfòó	One Is Still Dressed (i.e., underwear)
VVYV	à'ímìẹnnàhòó	Wishes Aren't Always Granted (i.e., a female child)

Table 8: Names of Native and of Foreign Origin

category	native name	meaning	borrowed name	source language	meaning
persons	ẹ̀dẹ́ẹ̀kì	(Born on) Market Day	èzọ́ọ̀zì	English	George
clans	ìsò	Heavenly (?)	úhẹ̀	Yoruba	Ife
gods	àkẹ́	Lord of Archery	èsàngó	Yoruba	Lord of Thunder
rivers	órhìọbhọ̀n	Ossiomo	òhìbhìnrlìn	Ibo	Niger
towns	ùrlíghọ̀n	gum-fruit tree (?)	ẹ̀kúẹ	Yoruba	Akure
regions	ésàn	Region of Creepers (?)	èkhìrhì	Yoruba	Ekiti

In addition, the plural form *èmọ́n*, "children", is the initial lexeme in the names:

8. *èmọ́ọ̀nsẹ̀ẹ́*, "Children Surpass (All Other Blessings)"
9. *èmọ́ọ̀nkpọ̀lọ́*, "Children Are Great (Sources of Welfare)"

Moreover, as we have seen, the word *ọ̀mọ́n* also occurs as a medial element in many other names.

Brachynyms of English type can themselves be divided into two sub-types: transferred and productive. The transferred type are simple Binicizations of English brachynyms, such as *èbọ́ọ̀bù*, "Bob". The productive type are abbreviations of a pattern that seems to have developed in Bini itself and to have given rise to new coinages on the same model. An example is *èsòló*, "Solomon". Although it is uncertain whether this pattern was derived from Bini nicknames like *òlùkú*, "Puppy", and whether addressives like *èmàmá* are models for it or derivatives from it, it seems probable that mesologs like *ènàtá*, "Nat" (which should have yielded **ènáàtì* if borrowed directly from the English nickname) are coined from the same mint.

Periphrastics also can be divided into two types: euphemisms and epithets. Euphemisms are polylexic substitutes for monolexic terms felt by speakers to be offensive. Examples are *ègbóòwá*, "the body of the house", used by women in place of the male term *ìkpàtáàlẹ̀*, "latrine"; and *èbháānsọ́n*, "night-people" used by the timid when referring to *àzén*, "witches".

Epithets resemble praise-names in being, originally at least, additives to rather than substitutes for names. An example is *ùnúùnghìísẹ̀*, "(She Whom) No Mouth Should Reach", an archaistic synonym for *ólórlí*, "queen". Often, however, the epithet comes to supplant the shorter term which presumably preceded it in frequency of occurrence as well as in date of origination. Such an epithet-turned-name is the mesolog *àkùn'èrháànkùn'ìrí*, "One that Collides with Branches and Creepers Alike", which refers to "the stick-nest tree-worm".

Dyslogs are of two types: nicknames and slur-words. Nicknames are derogatory appellations for individuals, slur-words for groups. But none seem to refer to places or things.

Nicknames, which are a richly burgeoning category of Bini appellatives, can be classified in either of two ways: structurally or semantically. Structurally, nicknames are most readily divided, initially, into productive and unproductive patterns. Of the seven productive patterns, five are tri-vocalic, one is tetra-vocalic, and one is penta-vocalic. Their tonal and vocalic characteristics are illustrated in Table 9.

Nicknames of unproductive patterns are quite heterogeneous in structure. Some examples are: *òkíìrhò*, "Fat Face", *ìmánkpèésù*, "Devil's Disciple", *àsíkpákàán*, "Tough Guy", *àtùgiẹ́n*, "Monkey", and *àgbàbhẹ̀nyàáhìáàbhẹ̀n*, "Chatterbox".

A semantic classification of nicknames groups them

Table 9: Nicknames Classified in Terms of their Tone and Vowel Sequences

(The capital letters in the marginal volumns should be interpreted as follows: T, top tone; L, low tone; A, first vowel; B, second vowel; C, third vowel; D, fourth vowel.)

tones	vowels	example	meaning
TTT	ABB	ukpoko	Bulgy
"	ABC	asimo	Slim
LTT	AAA	ọbọlọ	Fatso
"	ABB	ubebe	Scamp
"	ABC	owike	Knock-knees
LTL	ABB	oluku	Pup
"	ABC	iyẹlo	Yellow-Skin
LLT	AAA	akanbhan	Tiny
"	AAB	ebebi	Babe
"	ABB	ewili	Willy
LLL	ABC	imose	Beauty
. . .	- - -		
LTLL	ABBB	ogbiimi	Husky
. .	ABBC	abẹẹtu	Long-Beard
	. . .		
LTLLL	AAABC	alaagbodẹ	Road-Block
- - - - -	ABBCC	agbooghidi	Broad-Shoulders (?)
	ABCDD	aviẹlele	Charmer
	. . . .		

according to the age and sex of the persons referred to. Such a classification is illustrated in Table 10.

Slur-words refer either to local populations or to tribal groups. An example of the former is the dyslog *ìgòdòmíìgòdò*, "City of Yaws" (a name apparently given to Benin by an early Yoruba-speaking Ife prince who had been invited by the Bini to come rule over them), used in place of the usual mesolog *ẹ̀dó*. An example of the latter is the dyslog *íghọ́nmíìghọ̀n*, "barbarian", used for any or all of the non-Bini peoples of Nigeria instead of the more specific mesologs *ẹ̀kúẹ*, "Yoruba", *ìgbọ̀n*, "Ibo", *ìgàbàrlí*, "Hausa", or the like. It is interesting to note that both slur-words are homothetic compounds with the infix *-mA-*. (Whether this construction is inherently derogatory is not clear, since the analogously constructed royal name *éhẹ́nméèhẹ̀n*, though it could mean "Doubly Cursed", could also be interpreted to mean "Priest of Priests".)

Despite the negative connotation of both nicknames and slur-words, they differ considerably in the degree of negativism involved. In nicknames the derogation has a mild, teasing quality which is more humorous than hostile and often implies little more than intimacy or ambivalent affection, as do such English nicknames as "Red" or"Fats". Slur-words, on the other hand, are quite frankly insulting and imply a profound inter-ethnic alienation, as do the English slur-words "Kike" and "Nigger".

Table 10: Nicknames Classified According to the Age and Sex of the Persons Referred to

	reference	nickname	meaning
1.	to boys only	ùbébé	Rascal
2.	to girls only	ékpùúrlú	Bitsy
3.	to men only	àwàanyọ̀n	Drunkard
4.	to women only	àgàn	Barren
5.	to males only	ìzòogìẹ	Funny-Face
6.	to females only	nòséemáangìẹ́tàn	Petite
7.	to children only	ùsíe	Blackie
8.	to adults only	ọ̀yẹ́nkẹ́n	Hefty
9.	to persons of any age or sex	émìtẹ̀	Shorty

Sub-section 9: Stereotonics

Stereotonics are a nominal sub-class characterized by fixed and predictable tone. Gradationally, like pronouns and verbs but unlike other nouns, they are subphrases. They may be divided into two types: verbals and indefinitives. Verbals are macro-nouns which contain verbs, while indefinitives are micro-nouns which differ from non-stereotonics only in that they have lost their lexical tone and replaced it with an invariable grammatical tone-pattern.

Verbals may be divided into two pattern-types: productive and unproductive. Productive verbals may be either monotonic or ditonic. And monotonic verbals, all of which have the tone-pattern L→, are of three sub-types: agentials, gerunds, and instrumentals. Agentials, in turn, may be divided into three infra-types: uni-nominal, bi-nominal and tri-nominal. Examples of these three groups of agentials are:

1. VN: *ọ̀màankhè*, "potter" (from *man*, "to mold", and *àkhé*, "pot")
2. VNN: *ọ̀gbẹ̀ẹbhẹ̀ẹnhò*, "blabber-mouth" (from *gbe*, "to beat", *ẹ̀bhẹ̀ẹn*, "word", and [illegible] "voice")
3. VNNN: *ọ̀zùukpòogìeevà*, "second" (from *ze*, "to choose", *úkpò*, "status", *ógi-*, "rank", and *èvá*, "two")

All of them pluralize by changing their *o-* prefix to *i-*.

Gerunds differ from agentials in that they have the prefix *i-* instead of the prefix *o-* and have no separate plural form. They may be divided into four types: trisyllabic, tetrasyllabic, pentasyllabic, and hexasyllabic. Examples of each are:

1. *ìgbèehẹ̀n*, "fishing" (from *gbe*, "kill", and *ẹ́hẹ̀n*, "fish")
2. *ìhẹ̀nhùunnùn*, "unanimity" (from *hẹnhẹn*, "to level", and *ùnún*, "mouth")
3. *ìmùn'ègbèerìotọ̀ọ*, "humility" (from *mun*, "to take", *ègbé*, "body", *rle*, "to eat", and *òtọ̀'è*, "earth")
4. *ìzọ̀'ìyàanbhàakhè*, "obstetric extraction" (from *zọọ*, "to pluck", *ìyán*, "yam", *èbhe*, "from" and *àkhé*, "pot")

Instrumentals differ from agentials and gerunds in having the invariable prefix *u-*. They are of two types: trisyllabic and tetrasyllabic. Examples of each are:

1. *ùghèegbè*, "mirror" (from *ghee*, "to look at" and *ègbé*, "self")
2. *ùgbìnàanmẹ̀n* "umbrella" (from *gbinan*, "to fight", and *àmẹ̀n*, "water")

Whether the three verbal nouns prefixes *i-*, *u-*, and *o-* are connected semantically with the three homomorphic personal verb-prefixes is not clear. At first blush, one would be inclined to deny the connection in the first two cases and admit it in the third (*ọ̀dùukpọ̀n*, "weaver", being then interpreted as "*he* who weaves cloth", and so on).

Ditonic verbals, which may also be called circumfixatives, consist of a verb, an invariable metaphonemic circumfix *u...HAme* (phonemically realized as *u...bhen*), and either of two tone patterns: LTLL for tetrasyllables and LTTLL for pentasyllables. Semantically, circumfixatives are indistinguishable from gerunds. When tetrasyllabic, circumfixatives may be referred to as quadrifixatives, and, when pentasyllabic, as quinquefixatives. An example of each is:

1. ùgóòbhẹ̀n, "shouting" (from go, "to shout")
2. ùdínbhíìnbhẹ̀n, "depth" (from dinbhin, "to plunge")

Although, at normal speech tempo, it is indistinguishable from a trisyllabic quadrifixative, there is, in decelerated speech, a third type of ditonic verbal which has the superfix of a tetrasyllabic but the syllabification of a quadrifixative. Such a verbal is the noun ùghéèbhẹ̀n (metaphonemically ùghéHÁHÀmẹ̀) "appearance", from the verb ghee (metaphonemically gheHa), "to look".

Between the productive and the unproductive verbal noun patterns are a number of less common but by no means inconsequential patterns which we may call semi-productive. In most cases, they seem to be irregular extensions of one of the productive monotonic or ditonic types outlined above. Of these semi-productive verbal noun patterns, the commonest appears to be one which is tonally indistinguishable from a disyllabic verb. Three examples, arranged in descending order of the height of their prefix vowels, are:

1.	ìkpóòlò,	"rubbish"(from kpolo, "to sweep")
2.	èdáàbhẹ̀n,	"examination" (from dabhẹn, "to test")
3.	ẹ̀hóòhò,	"wind" (from hoho, "to blow")

A problem raised by these forms, as by semi-adverbials like èkèrlèkéèrlè, "water-snail", and titles like *àkpọ̀lọ̀kpọ́ọ̀lọ̀*, "Great One", is that of the interpretation of the etymologically "illegitimate" vowel between the vowel of the postpositive morpheme in the verbal stems *ho(o)ho*, *kpo(o)lo*, etc. One explanation is that these forms really are trimorphemic and that verbs like *ọ̀hòhó*, "it blows", or *ọ̀kpọ̀lọ́*, "he is great", have obscured this structure through the coalescence of two identical low-toned vowels in un-decelerated speech (cf. *ìhìnrlín*, "nine", from the decelerated form *ìhì(nbh)ìnrlín*). Another is that the tone-pattern TLL has become independently productive and been applied to disyllabic verbal stems which, prior to this superfixation, never contained more than two morphemes. If we accept the first explanation, we must re-write the above verb-stems as *hoHAho* and *kpọHAlA*, respectively, in which case the former stem becomes a discontinuous rather than a continuous autothetic compound and the second has a compound rather than a simple suffix. If we accept the second, we can continue to write them *hoho* and *kpọlA*, respectively, as we have done thusfar. Although the second interpretation is cerainly more convenient, the first seems more plausible.

A second semi-productive group of verbal nouns resembles the agentials in intonation and meaning but differs from them in prefix-vowel. Examples are, in descending order of the vowel-retraction of the prefix:

1. *òlòodẹ̀*, "sewing needle" (from *la*, "to go through", and *ọ̀dẹ́*, "path")
2. *àrlùugbò*, "farmer" (from *rlu*, "to do", and *úgbọ́*, "farm")
3. *èyọ̀otọ̀ọ*, "foundation" (from *yi*, "to insert", and *ọ̀tọ̀ẹ'è*, "ground")
4. *èdìigùe*, "villager" (from *dia*, "to stay", and *ígûe*, "village")

A third semi-productive group of verbals resembles agentials in its vowel-prefix but differs from them structurally in containing a compound verb rather than a verb-noun phrase, phonically in having the tone-pattern LLT, and semantically in being primarily gerundive in force. An example is:

1.	ọ̀zẹ̀ẹtá,	"rumor" (from zẹ, "to speak and ta, "to talk")

A fourth semi-productive group resembles gerunds in intonation and meaning but differs in structure and prefix, containing no noun objects and being capable of taking any of the four higher vowels as prefixes. Examples are, in descending order of prefix-vowel advancement:

1.	ìwìnnà,	"work" (from winna, "to work")
2.	èmìabhẹ̀n,	"illness" (from miabhẹn, "to be difficult")
3.	òrlòghò,	"puddle" (from rlogho, "to be watery")
4.	ùkpòkpò,	"trouble" (from kpokpo, "to disturb")

A fifth semi-productive group differs from all the productive groups in having the vowel prefix o- and the tone pattern TLT. In every case the contained supra-word is a disyllabic verb, which may be either replicative or suffixative in type. An example of each type is:

1.	ótìtí,	"fame" (from titi, "to be famous")
2.	ówòghó,	"noise" (from wogho, "to be noisy")

A sixth semi-productive group also takes the prefix ọ- but has the tone-pattern LLLT. All of its endo-lexemes are compound verbs. Semantically, the verbals in this group may be either agential, gerundive, or instrumental. Examples of these three sub-types are:

1. ọ̀vàanbhìẹ́, "overnighter" (from vaan, "to sojourn", and bhiẹẹ, "to sleep")
2. òrùnhẹ̀ẹ́n, "beginning" (from mun, "to take", and hẹẹn, "to start")
3. òyòbhìẹ́, "camp" (from yo, "to go", and bhiẹẹ, "to sleep")

A seventh semi-productive group takes the prefix a- and the tone-pattern LTL. The group is structurally heterogeneous, as its contained verbal construction may consist either of a single verb, a compound verb, or a verb-plus-noun phrase. Examples of each of these three constuctions are:

1. àgíẹghẹ̀, "coin" (from giẹghẹ, "to be small")
2. àrlékpà, "emetic" (from rle, "to eat", and kpa, "to vomit")
3. àgbẹ́ẹtẹ̀, "invalid" (from gbe, "to catch" and ẹtẹ́ẹ, "sore")

Unproductive verbal patterns, which are both structurally and semantically heterogeneous, are perhaps best listed in order of the number of syllables they contain and in suborder of the degree of tongue-advancement of their vowel-prefixes.

I. trisyllables

1. ìyáàyí, "faith" (from ya, "to take", and yi, "to put")
2. àríọbá, "reign" (from rle, "to be, and ọba, "king")
3. àrhúàrlò, "blind man" (from rhu, "to cover", and àrlò, "eye")

4. àrlúyàán, "doing things in sequence" (from rlu, "to do", and yaan, "to be over")

5. àmúnhi̍ìn, "abduction" (from mun, "to take", and hiin, "to remove"?)

6. ọ̀khọ́bhọ̀n, "invalid" (from xuọbhin, "to be ill"?)

7. údèrhú, "whistling hawk" (from de, "to fall", and rhu, "to cover"?)

II. tetrasyllables

1. àdọ̀lọ́ọ̀bíẹ, "rebirth" (from dolọ, "to redeem", and biẹ, "to give birth")

2. àhòóbẹ̀kún, "neediness" (from hoo, "to want", and bẹkun, "to act in vain")

3. ùdégùọghọ̀, "long and heavy necklace" (from de, "to fall", and guọgho, "to break")

4. ùdéfìágbọ̀n, "orphan" (from de, "fall", fi, "drop into", and àgbọ̀n, "world")

A rather special group of verbals consists of a noun modified by a relative clause but having a gerundive force rather than the instrumental one we might expect. An example is:

1. èbhììnàlé, "cooking" (from èbhíìn, "thing", èné, "the", and ale, "one cooks")

A construction which is similar both syntactically and semantically is the clausal èbhàarlé, "food" (from èbhě, "what", and arle, "one eats"). Whether such forms should be regarded as elliptical relative constructions or merely as substitutes for such constructions is debatable.

A similar question arises with regard to such verbal constructions as *èbhìinrùunún*, "tooth-ache", which appears to mean, literally, "something is in the mouth". If it is to be interpreted as a relative clausal, then we must assume either phonic elision of the consonant of the relative particle *(è)né*, "that", or grammatical ellipsis (analogous to what occurs in the English construction "things we do" vis-a-vis the fuller form "things which we do"). If we do not assume ellipsis, then we must interpret these verbals as stemless predicantials, (as opposed to the stemmed predicantials which we termed agentials, gerunds, and instrumentals).

With other verbals, however, there is no question that a free clause or predicant is contained, even if the "containment" is purely syntactic and semantic in nature. But what remains a question is whether these stemless predicantials are true stereotonics. The argument for so interpreting them is that their tone is fixed and predictable, even though its pattern cannot be so easily formulated as in the case of the monotonics or circumfixatives. That is, if we know the tone of these predicants in their free grammemic function, then we can infallibly predict the tone of their endo-grammemic equivalent, since it remains unchanged in form. Yet if this argument is rejected, we can still treat predicantials at this point, since, however we interpret their form, their distributions and meanings are indistinguishable from those of true stereotonics. At the very least, then, they are pro-stereotonics or stereotonic-substitutes. Whichever way we interpret them, however, predicantials are numerous and variable in structure. Perhaps the easiest way to classify them is in terms of syllabic number. Examples, in order of increasing syllabic number, are:

3S: *èbhìinfí*, "small-pox" (from *ebhiin*, "thing", and *ofi*, "it strikes")

4S: *umdeegbootọọ*, "strong wine" (from *ude*, "you must fall", *ugbe*, "you hit", and *otọ'e*, "ground")

5S: *à'ífìaanọ̀ọ́bhàan*, "artificial beads" (from *á'ifian*, "they do not come off" and *nọọbhaan*, "for one")

6S: *ọ̀bìọmọ̀ọn'írìébhìin*, "an ogre who threatens greedy children" (from *ọbiọmọn*, "parent", *ọ'irle*, "does not eat" and *ebhiin*, "thing")

7S: *àgùukìísìnbhìn'ógìe*, " the evening star" (from *agu-*, "one joins", *uki*, "moon", *osinbhin*, "he claims", and *ogie*, "suzerainty")

8S: *ámánhékpòlìikpóòlèéghóò*, "very early morning" (from *amanhekpolo'e*, "one has not yet swept", *ikpoolo*, "sweeping", and *eghoo*, "rubbish")

9S: *àrlò'írlòofìékhọ̀'èewèríẹ*, "repentance" (from *arlo*, "one thinks". *irlo*, "thought", *ofi*, "he throws", *ekhọ'e*, "mind", and *ọwerię*, "he changes")

A group of structurally minimal nouns which are syntactically and semantically verbals ought also to be appended here. Any vowel can serve as their prefix, and they can have any of the three tone-patterns TL, LT, or LL. Examples of the three are:

1.	*ádẹ̀*,	"buyer" (Cf. *dẹ*, "to buy")
2.	*èbí*,	"darkness" (Cf. *bi*, "to get dark")
3.	*òkhìan*,	"driver ant" (Cf. *khian*, "to go")

Functionally equivalent to these is a smaller group of trivocalic disyllabic nouns with the tone-pattern LTL, such as:

1.	*ìghóò*,	"flight" (Cf. *ghoo*, "to hover")

In a few cases, such as that of *ọ̀tá*, "talk", it seems possible to construe these haploids as predicantials. But in most cases the vowel prefixes (such as *e-*) or the vowel patterns (such as LL) are not those of verbs. In some cases the nouns lack a suffix found in the homobasal verb, as with *ọ̀díọn*, "older" vis-a-vis *ọ̀dìọọ́n*, "he is older". And in a few cases the vocalism of the noun differs from that of the verb, as with *òbhé*, "sleep" vis-a-vis *ọ̀bhìẹ́*, "he sleeps". Haploids of this kind are perhaps best termed pro-verbals.

The only non-verbal stereotonics in the noun-class are indefinitives, which are few in number and derivative in nature, all of them apparently being bound subphrasalized variants of lexic nouns. All are disyllables with the tone pattern L . They may be divided into two types, digital and non-digital, the latter being further divisible into two sub-types, personal and impersonal. An example of a digital indefinitive is *-ọ̀kpà*, "any" or "other" (which occurs only after the particles *rhá*, "no", and *èné*, "the" and contrasts tonally with its free equivalent *ọ́kpá*, "one"). An example of a personal non-digital indefinitive is *-ọ̀bhàan*, "anyone" (which occurs after nouns or verbs and contrasts tonally with its free equivalent *ọ̀bháàn*, "person"). And an example of an impersonal non-digital indefinitive is *-èbhìin*, "anything" (which occurs in the same environments as its personal equivalent *-ọ̀bhàan* and contrasts tonally with its free equivalent *èbhíìn*, "thing").

Sub-section 10: Compositives

Compositives are noun compounds. They are formed by placing two or more nouns in junctured sequence. (When nouns are separated by major or minor disjuntures, as utterance-initial locatives usually are from the subject nouns that follow them, they do not constitute compounds.)

Syntactically, compositives may be divided into salutatives, which, like vocatives, are distributionally similar to exclamatives, and non-salutatives.

Salutatives consist of the co-noun *ọ́bʌ́-*, "greeting", followed by free locative, verbal, or pro-verbal nouns. Several extremely common examples follow:

1.	*ọ́bóòwíẹ*,	"Good morning!"
2.	*ọ́báàvàn*,	"Good day!"
3.	*ọ́bóòtà*,	"Good evening!"
4.	*ọ́bóòkhìan*,	"Welcome back!"
5.	*ọ́bíìwìnnàn*,	"Felicitations on your work!"
6.	*ọ́béèbhàrlú*,	"Good luck with your enterprise!"

Non-salutatives may be structurally divided into continuous and non-continuous types. These, in turn, can be divided into homothetic, heterothetic, and amphithetic sub-types. And homothetics, finally, can be divided into autothetic and allothetic infra-types.

Derivationally, continuous antothetic compositives can still further subclassified on the basis of whether their constituent nouns occur free and automorphic with them, free and allomorphic from them, or only as co-nouns. An example of each of these three types of autothetics follows:

1. *èbéèbé*, "leafiness", from *èbé*, "leaf"
2. *ẹ̀zẹ́ẹ̀zẹ́*, "swampiness", from *ẹ̀zẹ̀*, "river"
3. *óbòóbò*, "flower", from **-óbò-*, "blossom"

An unusual example of a continuously antothetic predicantial compound is *ẹ̀dẹ́ẹ̀gbéè-ẹ́ẹ̀gbéè*, "day after day", from *ẹ̀dệgbéè*, "daybreak".

Two probable examples of allothetic co-nominal compounding, both with reverse elision, are these:

1. *ẹ̀ghúùghù*, "crocodile", from *ẹ̀ghú-* and *-Àghù*, two allologs of **-ẹ̀ghù-*, "small reptile"
2. *ògbíìgbì*, "rapid current", from *ògbí-* and *-Àgbì*, two allologs of **-ògbì-*, "flow"

Of these two examples, the first shows the normal shift of -L + L- to -T + L- in two-noun sequences, while the second exhibits the shift of -L + L- to -L + T- ordinarily found only in verb-plus-noun sequences. (There is always a possibility, of course, that *ògbíìgbì* is really a predicantial from an obsolete haploid verb and that it orignally meant something like "the current -- let it flow!") It is possible, moreover, that an echoic noun like *òwòwò*, "heat", is abridged from an older **òwòowò* and that it exhibits still a third way of handling the evidently unstable tone-sequence -L + L-. If so, the contained co-noun is probably **-òwò-*, "warmth". By the law of analytical parsinomy, however, we are constrained, in the absence of clear evidence for this interpretation, to contrue *òwòwò* as a noun simplex with a compound stem, analogous to *ẹ́gógó*, "bell", and the like.

It is possible, as we noted above, that such tonally anomalous semi-adverbials as *èsùghùsúùghù*, "owl", are best explained as continuous allothetics, the form *-súùghù* being derived by a process of tone-transfer from **-Ásùghù*, an allolog of *èsùghù-*, "night-bird".

An example of a common continuous bi-liberal heterothetic compositive is *òwéèbé*, "library" (from *òwá*, "house", and *èbé*, "book"). An example of its uni-liberal equivalent is *árhùnbhóotọ̀ọ*, "viper" (from *árhùnbhÁn-*, "person", and *òtọ̀'è*, "earth"). Nulli-liberals of the same category doubtless exist, but, because of the non-occurrence of their endo-nouns in other constructions, it seems safer to treat most putative specimens of them as simplices. An example is the name *ígbàághọ̀n*, "Jamieson River", which may mean "Shady Place" (from the locative *ígbà*, "time", and the endo-noun of *ághọ̀ọ́nghọ̀n*, "shadow") but which may well be derived from other nouns — or from none.

An example of a continuous amphithetic compositive is the locative *ùgbúùgbẹ́ẹ̀hía*, "always" (from *ùgbẹ́-*, "time", and *èhía*, "all").

Some predicantials which we have tentatively treated as elliptical relative constructions may actually be continuous heterothetic compositives. An example is *èbhìinfí*, "small-pox", which may really mean "something like yaws" (from *èbhíìn*, "thing", and *òfí*, "yaws").

A few other puzzling constructions may fall under this rubric, such as *àrlòobhẹ́ẹ̀nbhẹ̀n*, "greed" (from *àrlò*, "eye", and *-Àbhẹ́ẹ̀nbhẹ̀n*, a presumed co-log of *ùbhẹ́ẹ̀nbhẹ̀n*, "widening"). If so, a number of similar constructions involving *ègbé*, "body", may be similarly explained. Examples are *ègbèmúùnbhẹ̀n*, "excitement" (presumably containing a co-log of *ùmúùnbhẹ̀n*, "seizure") and *ègbèerlọ́khọ́ọ̀bhẹ̀n*, "leisure" (similarly involving *ùrlọ́khọ́ọ̀bhẹ̀n*, "softness"). Semantically, however, these compositives seem to be inverted as regards the order of their endo-nouns. A more normal arrangement is that found in the construction *àrhíọkpà'ègbè*, "resurrection" (from the verbal pre-noun *àrhíọkpà-*, "early rising").

The normal limit for compositive length seems to be three endo-nouns and six syllables, as in the clan name *ìdúnbhìinbhìótọ̀ọ*, "Native Quarter" (from *ìdúnbhùn*, "ward", *ìbhí*, "children", and *òtọ̀'è*, "land"). It may well be that a number of otherwise opaque hexasyllabic constructions ought actually to be explained as nulli-liberal compositives of analogous structure. Thus, for example, the noun *èkpàkpàhúnbhàngàn*, "scorpion" may actually contain the two bound endo-nouns *èkpàkpàhÁn-* and *-úbhàngàn* (structurally analogous to the free nouns *ìzàzàkó*, "All-Day Runner" and *óbèlè*, "paddle", respectively) or the three bound endo-nouns *èkpàkpà-*, *-ÀhúnbhÀ-*, and *-àgàn* (structurally analogous to *ìbòbò*, "hide", *úkòkò*, "pipe", and *ágá*, "chair", respectively.)

Discontinuous compositives are of two kinds: uni-interpolate and bi-interpolate. Uni-interpolates have one syllable or morpheme between their endo-nouns, while bi-interpolates have two. Uni-interpolates may be either dilexic or trilexic. And, while all dilexics are homothetic, some homothetics are autothetic and some allothetic. Some examples of autothetic dilexics uni-interpolates are:

1. with infix -dA-: *ègédêegé*, "two story house"
2. with infix--lA-: *àkpàláàkpà*, "spider"
3. with infix -mA-: *ìgòdòmíìgòdò*, "City of Yaws"
4. with infix -bhAn-: (which may be an allomorph of -mA-): *ìrlànbhíìrlàn*, "water-lily"
5. with infix -bA-: *ìtébíìté*, "eternity"

A example of an allothetic dilexic uni-interpolate is:

1. with infix -mA-: *íghónmíìghòn*, "outlandish foreigner"

Trilexic uni-interpolates may be either homothetic or amphithetic. A clear example of the former is:

1. with infix -bhAn-: *èdéedébhèendò*, "ever" (from *èdé*, "day")

An uncertain example of the latter is:

1. with infix -tA-: *òlóogótóògó*, "cur" (cf. *òló*, "mutt")

Bi-interpolate compositives are extremely rare. An example is the unique trilexic:

1. with infix -abhAn-: *ùsíinsín'ábhùunsìn*, "some time ago" (from *usin*, "a long time")

It is possible, however, that the infix -abhAn- is really an allolog of the particle ábhé, "these", in which case the above compositive is really a phrase, like the replicate grammeme ọ̀bháàn'ìkọ̀ọbháàn, "everyone", and so should be treated in the Syntax (q.v.).

Sub-section 11: Haploids

The last nominal sub-class which we must consider is the haploids. Haploids are nouns of relatively simple construction which never have more than three syllables and four morphemes (a vowel prefix, a root, a sequent linear morpheme, and a tritonic superfix). Since haploids probably contain, in purely statistical terms, more nouns than any other sub-class, it may well be asked why we did not treat haploids at or near the beginning of the section on nouns. The answer is that, heuristically at least, haploids are a negative group: when all of the more distinctive sub-classes, such as echoics and streotonics are eliminated one by one, haploids are what is left.

Haploids are structurally divisible into two types: monobase and dibase. The monobase haploids contain one root, and the dibase, two. Monobases, in turn, are of two sub-types: ditonic and tritonic. Ditonics contain, on the linear level, only a prefix and a root. Examples of the four types of ditonics are found in Table 11.

Tritonic monobases are disyllabic nouns containing a prefix, a root, and a suffix. Four examples of such monobases are given between the ditonics and the dibases in Table 11. In the first three cases the suffix is probably the extensional -rle, which appears in its full form in the trisyllabic monobase noun ẹ̀gùarlè, "palace". (The reason why such nouns are not listed in the table is that, in most such cases, the vowel of the suffix is assimilated before the preceding consonant is lost, so that the word becomes an echoic rather than a haploid. An example of such "echoicization" is the noun ásórló, "spear", which probably comes from an older *ásórlé.) In the fourth case it appears to be -Ha, homomorphic and perhaps also homosemic with the first morpheme in the disyllabic infix -abhAn-, as in ùsíinsín'ábhùunsìn, "long since". (Since infixes and extensional suffixes have only functional, as opposed to lexical, meaning, the identity of the two affixes is intrinsically insusceptible either to proof or disproof.)

Dibase haploids consist of a prefix, a root, and a sequent morpheme which we must assume to be a root when its vowel has not assimilated to that of the preceding syllable and so produced an echoic. In those cases where the morpheme is both homomorphic and homosemic with a known root (as with úmọ̀n-bìẹ, "mother of many children", where the third morpheme is clearly identical with the verb biẹ, "to give birth", and the noun ibiẹ-, "children"), no doubt remains about

Table 11: Haploid Nouns

tone pattern	noun	meaning
T-T	uko	calabash
T-L	owọn	honey
L-T	ehọ	ear
L-L	ugie	ceremony
T-TL	ogun	eunuch
T-LT	itue	whistling
L-TL	ekhuẹn	ashes
L-LT	okpia*	man
T-T-T	ekuẹmọn	brown rat
T-T-L	ekita	dog
T-L-T	uzọla	week
T-L-L	umọnbiẹ	fertile woman
L-T-T	ukotin	hair-pin
L-T-L	adesẹ	middle
L-L-T	oduman	lion
L-L-L	ẹgbosi	unripe palm-nuts

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* Trisyllabic in decelerated speech.

dibase status. And where the second morpheme is syllabically coenomorphic (as in the case of *òdùmán*, "lion"), the morpheme can hardly be an affix. But in other cases (such as that of *ékítà*, "dog"), there is always a chance that a semantically unknown and phonically ambiguous morpheme may turn out to be a suffix. Such a likelihood, in fact, is considerable in the case of *úzọ̀lá*, "week", since the suffix *-la* (in its post-nasal by-form *-nan*) occurs frequently and without vowel-assimilation among verbs (such as *winnan*, "to work").

Some question arises about the status of nouns like *ẹ̀zìzà*, "bush-ghost". At first blush, *ẹ̀zìzà* appears to be an echoic because of the repetition of the consonant in it. But alliteration (as opposed to vowel-rhyme and tone-rhyme) is so uncommon as to cast doubt on its existence as a pattern in Bini. It is probably fair, therefore, to regard such consonant-repetition as coincidental, as it demonstrably is in the case of loan-words like *ẹ́pípá*, "pipe" (from Portuguese *pipa*). Hence we may provisionally class *ẹ̀zìzà* and similar nouns as haploids of the dibase infra-class.

Looking back over the eleven noun sub-classes, we note that several of the nouns cited have plural membership among these subclasses. And we may infer — quite correctly — that many other enjoy this taxonomically dubious distinction. Thus, for example, *ọ̀bhí*, "son" is both a pluraliser and a haploid. *bàsàbàsà*, "latex-shrub", is a basive, an echoic, and an adverbial. And *ọ́nàn*, "this", is at once a pluraliser, a haploid, a serial, and a clitic. Moreover, some sub-classes are inherently included in or overlapped by other sub-classes. Thus, all monotone stereotonics like *ọ̀bọ̀wà*, "house-builder" are, by definition,

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also echoics, since their initial low tone is repeated in every syllable. As we noted earlier, however, an "air-tight" classification of Bini names, even on puristically bifurcatory principles, does not seem practically feasible. And taxonomic overlap does have the pedagogic advantage of inducing both writer and reader to look at various sub-categories of nouns from several different points ov view and so to increase their analytical perspective.

Before we leave Bini nouns (with no few sighs of relief), there are two problems of theory that we must deal with. One has to do with the surprising disparity in complexity between the 12-form paradigm of the pronoun and the 2-form paradigm of the pluralizing noun. This disparity could be reduced somewhat and the parallellism between the two groups of nominals made more evident if we were to increase the noun paradigm to 4 forms by including pre-nominal and pre-nominal "cases" in the noun "declension". Thus, a noun like òbhí, "son", could be inflected in the following quadripartite manner:

1. isolative singular: òbhí
2. pre-nominal singular: òbhì-
3. isolative plural: ìbhí
4. pre-nominal plural: ìbhì-

And a noun like òkhùo, "woman", could also have four forms, though they would be differently labeled, as follows:

1. isolative singular: òkhùo
2. pre-nominal singular: òkhúo-
3. isolative plural: ìkhùo

4. pre-nominal plural: ìkhúo-

All things considered, however, it seems better to relegate the pre-nominal forms to the Chapter on Phrases in the Syntax. And, although pre-nominal forms do belong to lexemic rather than to syntactic analysis, they do not have to be regarded as paradigmatic in nature. A transformation like that of the words òkho, "woman", and ẹ̀dó, "Benin" in the compound òkhẹ́dó, "Bini woman", can be regarded as processual rather than formal in nature. Or, if an exclusively morphemic approach is insisted on, we can still construe òkho ↑- ẹ̀dó non-processually by calling the vertical arrow (which changes a preceding low tone to high) a replacive tonal infix, equivalent to the English word "of" in the phrase "woman of Benin". In any case, the tone-chages in question are probably better treated as derivational than as inflectional in nature.

Our final theoretical problem is one raised by Melzian in his typescript grammar when he entitled one of his chapter "Adjectives". The handful of words he cites there fall implicitly into two classes: prefixed (e.g., ọ́gbọ̀n, "new") and prefixless (e.g., dàn, "bad"). The first of these is, of course, an echoic noun nowise different in structure from úkpù, "cup". The only reason for calling it an "adjective" is that it is, in context, most easily translated by an English or German adjective. The second is a bit more complex, since it "adds" a high tone to whatever noun it follows. What we have done thusfar in this section is call all such postnominals after-nouns and write them with an initial meta-vowel. In this case, we would write the word -Ádàn, call it a co-noun, and translate it "badness" (though of course the compound èbhìíndàn, literally "a thing of badness", is mostidiomatically translated "a bad thing").

Section 4: Adverbs

Adverbs are a distinctive class of lexemes whose taxonomic status, in terms of a dichotomizing structural classification of lexeme groups, is in doubt. In most respects, they belong with the inflectables (such as nouns and verbs) as against the uninflectables (particles and exclamatives). But within the inflectable category, they can be treated in either of two ways. From a bifurcatory point of view, it is more convenient to class them as verbals and call them impersonals to distinguish them from verbs, which are, in these terms, personals. From a historical standpoint, however, it seems more convincing to call them nominals and to distinguish them from other nominals by terming them invariables, in contrast to nouns and pronouns, which are pluralizers.

A second question concerning adverbs has to do with nomenclature. If they are nominals rather than verbals, would it not be preferable to call them "adjectives"? Or, if this seems invidious, could we not avoid a discriminatory choice by adopting a neutral term such as "attributives" or "modifiers"?

A third question concerns graphonomic procedure. Gradationally, nearly all adverbs are, at the most, co-words. In other words, they are bound lexemes of a kind which, in the preceding section, we consistently wrote with an initial hyphen to indicate their inability to occur in isolation. Furthermore, their tonal behavior indicates that, at minimal tempo, all of them begin with a low-tone vowel of indeterminate color which, in the case of clitic after-nouns like -(Á)kàn, "bare", we have consistently written with the meta-vowel A. In short, since maximal or metaphonemic forms are the only ones which give us all the pre-syntactic information we could require on lexemes, ought we not invariably to write all adverbs with both an initial hyphen and an initial vowel?

The fourth and final question has to do with glosses. Should we translate all Bini adverbs by means of English adverbs (e.g., "deeply") or can we use English adjectives (e.g., "deep") as well?

In pragmatic terms, all four of these questions can be answered together and in the same manner: First, when we find it useful to be puristically structural in our taxonomy, we shall refer to adverbs as verbals. But when our frame of reference is primarily historical, we can and will treat them as nominals. Second, since the chief function of adverbs is to modify the verbs and since the term "adverb" is briefer than the term "attributive", we shall continue to refer to these lexemes as adverbs in taxonomic contexts but reserve the right to call them "modifiers" in functional contexts where no ambiguity seems to result. Third, our approach to graphic representation will be similarly utilitarian. When lucid structural analysis is our primary objective, we shall employ maximal forms beginning with vowel prefixes. But when our purpose is merely that of lexical listing, we shall omit the prefix vowel and all other metaphonemes. And hyphens will be written or omitted on the same basis. When we wish to contrast an adverb with a (non-adverbial) free form, we will write it with an initial hyphen. Otherwise we will omit it. Thus, the maximal grammatical form -Àzẹ́HÁ, the maximal phonological form Àzẹ́HÁ, the normal grammatical form -zẹ̍ẹ, and the normal phonological form zẹ̍ẹ will all be interpreted as signifying one and the same lexeme, according to context -- namely, the Bini adverb meaning "exactly". And finally, we shall translate Bini adverbs by English adverbs where these seem clearer or more precise but, for brevity's sake, by English adjectives where these seem equally clear or precise.

Paradigmatically, most Bini adverbs are lacking in inflection of any kind, a fact which seems to warrant their being classed with particles and exclamatives. But a few have stems that have two alternative tone-patterns, T → and L →. An example is Àbẹ́tÁHÁ (bẹ̍tẹ́ẹ) or Àbẹ̀tÀHÀ (bẹ̄tẹ̀ẹ) "big and fat". Alternations of this kind are handled in any of four different ways by native speakers. One is to treat them as free variants or equivalent allologs. A second is to make a marginal semantic distinction between them, the first meaning "big and broad" and the second "short and fat". The third is to make a distinction in aspect between them, the first, when it follows the verb ye, "to be", giving the verb-plus-adverb sequence the meaning "is big" and the second giving it the meaning "was big". And the fourth is to make a distinction in case, the first giving the above phrase a declarative and the second an interrogative force.

The second of the above four usages, which is probably the commonest, is dealt with in Volume V, "Semantics". But the third and fourth must be dealt with here; and both are difficult to interpret. Structurally, however, a few things do seem clear. First, the perfective verb-suffix -rle and the post-verbal interrogative particle -Arla, both of which may be presumed to occur (in the abridged forms -A and -A) between the verb ye and the adverb bętęę in the aforementioned phrase, end in a low tone. And it may be that the choice of the low-toned variant of bętęę is conditioned by the tone of the preceding vowel — which, in this case, is high in the progressive declarative but low in the perfective and interrogative. Second, the inflection here, if so it may be called, applies rather to the entire verb-phrase (or sequence of verb plus modifier) than merely to the modifier itself, and so ought rather to be treated under Syntax than under Lexemics.

Yet historically an interesting question remains. Is adverb inflection, or the inflection of verb-plus-adverb phrases, an obsolescent or an incipient phenomenon? If the former, then we must say that adverbs are diachronically in process of moving from the inflectable to the uninflectable category; if the latter, then from the uninflectable to the inflectable. If we regard adverbs as "phylogenetically" descended from nouns, then the former interpretation seems more plausible, in view of the increasing obsolescence of noun-inflection in Bini. But if we regard them as descended from verbs (see below), the question must remain open..

There is no simple and uniform process by which we can derive adverbs from non-adverbs as we derive verbals like ùgáàbhę̀n, "service", from verbs like ga, "to serve" by application of a circumfixative or functionally equivalent morpheme. Nonetheless, there are two classes of inflectables, certain sub-types of which show striking structural affinities with adverbs — namely, nouns and verbs. Replicate adverbs like *si̍mósímó*, "lean", and *di̍nbhíndínbhín*, "deep", inevitably remind one of nicknames like *ásímó*, "Slim", and verbs like *dinbhin*, "to plunge", respectively. Although he does not discuss the question in his brief chapter on adverbs in the typescript grammar, Melzian makes it abundantly clear, if only by implication, in his Dictionary that he regards adverbs as verbal derivatives. If anything, however, I would incline rather to derive the adverbial class from the nominal class, since several adverb-types differ from adverbial noun-types only in the colorlessness of their vowel-prefix, and a few individual lexemes can serve either as nouns or as adverbs. An example of the latter is the noun *èkpékúkpékú*, "rat-poison", which , when cliticized to *-Àkpékúkpékú*, becomes an adverb meaning "throbbing". Examples of the former-- that is, equivalent nominal and adverbial pattern -- are given in Table 12.

Gradationally, adverbs resemble particles in that virtually all of them are bound. Within other lexeme-classes, they are therefore comparable to co-nouns, co-verbs, and postpositive pronouns and exclamatives.

Syntactically, adverbs are restricted to postpositive slots. More precisely, they may occur immediately after -- and only after -- any one of the four following form-types (listed in order of decreasing frequency): 1. verbs, 2. verb phrases consisting of a verb plus a nominal, 3. the particle *èné*, "the", 4. nouns. In this respect they resemble nominals generally and nouns particularly.

Table 12: Adverb-types and Structurally Equivalent Noun-Types

stem-pattern	adverb	basive noun	adverbial noun
T-T-T-T	dinbhindinbhin, "deep"	hebhehebhe, "ghost-bird"	esẹghẹsẹghẹ, "gum-tree"
L-L-L-L	vaghavagha, "clumsy"	basabasa, "latex-shrub"	ẹrhunbhunrhunbhun, "tall"
L-L-T-T	vaghavagha, "staggering"	kẹtẹkẹtẹ, "ass"	ekpalakpala, "stock-fish"
L-T-L-T	wọmuwọmu, "voracious"	tolotolo, "turkey"	elukuluku, "river-tortoise"
L-T-L-L	tobatoba, "glued together"	tọghọtọghọ, "cock's throat-crest"	
T-T-T			
AAB	wẹwẹrhẹ, "shallow"		ulelefe, "ant-hill"
ABC	kẹghẹrlẹ, "small"		ekpokolo, "bamboo-sticks"
LT-LT	hiehie, "at all"		ateetee, "grass-hopper"

Phonically, nearly all adverbs are both echoic and stereotonic, in that the vowels are usually repeated, tones often fixative, and tone pattern almost invariably predictable on the basis of linear structure alone. In these regards, of course, they strikingly resemble echoic and stereotonic nouns. Quantitatively, adverbs, like nouns, may have as many as nine syllables. In this regard they contrast strikingly with other lexeme-classes, none of whose members may exceed three syllables.

Structurally, all of the productive adverbial succlasses contain a minimum of four morphemes — a root, a complex prefix, a suffix, and a superfix. In this respect they most resemble nouns and particles, which require a minimum of three morphemes, and contrast with all other classes, which permit a minimum of two.

Summing up, we may say that adverbs behave, on the whole, like basive, clitic, echoic, stereotonic nouns of a highly specialized but proliferated variety.

There is only one advert prefix, A-. Since this prefix never occurs in utterance-initial position, it could be argued that it is an infix and should be re-written as -HA-, to make it structurally parallel with such well-established infixes as the -bA- of ètìtìbíìtì, "lyre-bird". But to do so would be to treat phrases as lexemes rather than — as we shall do — as grammemes. We shall, therefore, persist in our interpretation of À- as a prefix. Yet we are compelled to acknowledge the fact that À-, unlike most noun-, pronoun- and particle-prefixes, is wholly invariable in tone. Since this tonal invariability, however, is not shared by the adverb stem, it seems analytically preferable to separate the prefix-tone from the stem-tone and to say that Bini adverbs have two superfixes rather than one. The result of this is that a binary analysis of adverbs leads us to quite different results from an equivalent analysis of nouns or verbs. Thus, such non-adverbial forms as ósísí, "gun" or ọ̀lá'è, "it flowed" are best separated first into a linear and a prosodic component in each case, whereas the adverb ÀgbóHÁ, "wide", is best separated first into a complex prefix and a complex stem. Only after this initial vertical cut has been made can a second and horizontal cut be made separating linear from prosodic morphemes in each case.

Since the prefix A- is such an indispensable one for adverbs, one cannot help speculating on what its vowel-color was before it became cliticized. If one leans toward a nominal derivation for adverbs, he will probably choose e-, which is the prefix of most basives, adverbials, and loan-words among the nouns. But if one leans toward a verbal derivation for them, he will probably choose o-, which is the most used of all the personal prefixes and which extends even into the agential category of verbal nouns. Thus, "nominalists" will prefer to derive Àkhérhé(e), "little" from èkhérhé, "a little", while "verbalists" will prefer to derive it from ọ̀khèrhé, "it is little". In this matter, the reader may choose for himself. (The author has already done so.)

Adverb suffixes number at least twelve: bha, kpA, gbA, kA, tA, dA, ghA, zA, rhA, rA, rlA, lA, and nA. In addition we must mention the wholly metaphonemic suffix -HA which may be an allomorph of ghà or rlà or of some other suffix, such as e-hà.

These single suffixes can be combined into double suffixes, such as kìrlà, ghàrlà, dàghà, làsà, zàkà, or nàdà; or into triple suffixes, such as ghàrlàkpà or rlàghàdà. But all, being extensional in nature, are devoid of lexical meaning.

In a few cases, morphemes not initial in an adverb stem can be identified as roots by comparison with known roots from non-adverbial lexeme-classes. Such clear radicals are the second stem morphemes in mõdè, "beautiful" (cf. dé, "beauty") and [illegible], "zig-zag (cf. goo, "to get bent").

In rare cases, morphemes not stem-initial in one adverb appear stem-initially in another and so demonstrate theri radical status. Such a root is the second one in gùnkáan, "emaciated", which appears unambiguously in kàgúnkángún, "lean".

Where such cognates cannot be established, recourse must be had to syllabic structure. Other things being equal, it is unlikely that morphemes containing nasal vowels or diphthongs are suffixes. It seems probable, therefore, that the nasal morphemes in the adverbs bòhùun, "big", and sòlógánsólógán, "sore-footed", are also roots.

Most other non-metaphonemic non-initial stem-morphemes, however, must remain in doubt. Among the twenty-odd adverbial morphemes which may be either roots or suffixes are: *kpa*, *gba*, *ke*, *ka*, *ko*, *ku*, *ga*, *gho*, *si*, *sa*, *rhu*, *rli*, *rlo*, *la*, *le*, *ne*, *na*, *no*, and *nu*.

Equally indeterminate are the second stem-morphemes in the adverbs *mīntàn*, "listless", and *[illegible]*, "tender", since the vowel quality of *-tan-* and the vowel color of *[illegible]* may in each case have been influenced by the vowel of the initial stem-syllable.

Adverbs may be divided into euphonic and dysphonic subclasses. Euphonics may be divided into monotonic and ditonic infraclasses according to the number of tone-levels in their stems. Monotonics may have either replicated or unreplicated bases. And unreplicated monotonics may have stems with two, with three, or with four morphemes.

Replicated monotonics may have either duplicated or triplicated bases. Duplicates may have stems with either four, six, or eight morphemes. Triplicates may have bases with either one or two morphemes. When monobase, they have stems consisting of four morphemes — a root repeated twice, with the metaphonemic infix *-HA-* occurring between repetitions. In accelerated speech, this infix becomes a zero morpheme, a fact which appears to reduce the triplicate stem from four morphemes to three. When dibase, triplicates have stems with six morphemes and no infixes.

Ditonics are of two types: trisyllabic and hexasyllabic. Trisyllabics have monor stems which consist of unexpanded roots. Hexasyllabics have stems which consist of a root followed by a morpheme which is, in some cases, demonstrably a distinct root and in others of uncertain morphological status. Varieties of euphonic adverb structure are illustrated in Table 13.

In addition to these sixteen normal patterns, there are seven rare euphonic patterns. Rare euphonics may be divided into monotonic and ditonic types. Monotonics, all of which are trisyllabic, may be either replicate or non-replicate. An example of a rare replicate is *wẹ̍wẹ́rhẹ́*,"shallow". Non-replicates may have their suffixes in either medial or final position. An example of the former type is *gīzàkà*, "clumsy"; of the latter, *kpātàkì*, "important".

Ditonics may be either symmetrical or asymetrical in type. Symmetricals may be either tetravocalic or hexavocalic. An example of the former type of ditonic is *pìánpìán*, "slashing". (Compare the tone pattern of the last four syllables of the noun *ólí-zà'ízà'í*, "swiftness). An example of the latter is *wẹ̀kẹ̀ẹ́wẹ̀kẹ̀ẹ́*, "waddling".

Asymmetrical ditonics may have either four, five, or six morphemes in their stems. An example of a tetra-morphemic symmetrical is *vàghàvághá*, "staggering". An example of a penta-morphemic asymmetrical is *hìéhìérlè*, "at all". And an example of a hexa-morphemic asymmetrical is its allolog *hìérléhìérlè*, idem.

Dysphonic adverbs are adverbs which do not conform to normal phonic rules and so, in a sense, do not belong to the language proper at all but rather to the domain of para-language. (See Volume V,

Table 13: Euphonic Adverb Structures

(A represents a root; B, a different root; I, an infix; Z, a suffix; Y, a different suffix; X, a third suffix, distinct from both the others; M, a morpheme which may be either a root or a suffix; parentheses, a morpheme which may be phonically elided; and an asterisk, a productive pattern.)

type	adverb stem	meaning	pattern	number of morphemes
non-replicate	suun	gaping	AZ*	2
	sio'i	erect	AM(Z)*	3(2)
	kẹghẹrlẹ	small	AYZ	3
	yankaan	big	AY(Z)*	3(2)
	goorlo	shrill	A(Y)Z*	3(2)
	kuarlaghada	depleted	AXYZ	4
duplicate	sigosigo	tall	ABAB*	4
	yẹkuyẹku	fat	AMAM*	4
	zaghazagha	sparse	AZAZ*	4
	sologansologan	foot-sore	AZMAZM	6
	zigharlakpazigharlakpa	rheumatic	AMYZAMYZ	8
triplicate	wẹwẹẹwẹ	whispering	AA(I)A*	4(3)
	vughavughavugha	heavy	AMAMAM	6

Table 13 cont.

type	adverb stem	meaning	pattern	number of morphemes
ditonic	hunhunhun	muttering	AAA	3
	bigǫbigǫbigǫ	crooked	ABABAB	6
	gobagobagoba	crippled	ABABAB	6
	kpankankpankankpankan	gravelly	AZAZAZ	6

Semantics). In this regard they resemble dysphonic exclamatives, from which are structurally and phonically indistinguishable. The only distinction between them is syntactic and consists of the fact that adverbial dysphonics usually occur only after verbs, whereas excalmative dysphonics may also occur in isolation.

Semantically, dysphonics are nearly all imitative in force. They appear to echo the sounds of the non-linguistic world, whether natural or human.

Dysphonic adverbs are divisible into syllabic and asyllabic types. Syllabics may be either autophonic or xenophonic. And autophonics, in turn, may be either eutactic or dystactic. A eutactically dysphonic adverb exhibits ordinary syllabification, contains native phonemes, and arranges them in normal sequences. Its only deviation from euphony is that it employs inappropriate allophones of the phonemes it contains. An example is the imitative *kpŭ̄*, "with a plop", whose vowel has only about half the phonetic length of the euphonic verb *ku*, "to hurry". (It is possible that infixed triplicates like *sǭsǫ̀ǫsǫ̀*, "foaming", also belong here. For at least some members of this euphonic class show dysphonetic voel-sequences. Thus, for example, the adverb *ge̍géegé*, "high", has a final vowel of abnormal brevity. And all three of the vowels in the adverb *pŭ̄pŭ̀pŭ̀*, "fluttering weakly", are abnormally short.)

Dystactic adverbs contain native sounds arranged in abnormal sequences. The result is a non-native type of syllabificattion.

Three types of consequent dysphony are vowellessness, syllable-closure, and consonant-clustering. An example of the first of these conditions is gbr̀, "grrr!" of the second, gbọ̍'úm, "boom!"; and of the third, grì, "suddenly".

Xenophonic adverbs contain sounds normal to languages with which Bini is in contact, but not to Bini itself. Examples are di̍ẹyẹ́ngdíẹyẹ́ng, "tinkle-tinkle", and jọ̄jọ̀jọ̀, "clickety-clack", the first of which contains a velar nasal normal to Ibo and the second a voiced palatal affricate normal to Yoruba.

Asyllabic adverbs lack not only vowels but even those voiced nasals or linguals which have vowel-like resonance. An example of such a dysphonic is the verb-sequent s̍s, "here, boy!" Some asyllabics are also xenophonic, as is the dysphonic verb-sequent ž̄ž, "pouring down", which contains a voiced palatal fricative normal to English but not to Bini.

Adverbs are unique among Bini lexeme-classes in that they show extraordinary dialectal and idiolectal variability. An example of this variability is the octosyllabic duplicate zīghàrlàkpàzīghàrlàkpà, "rheumatically", which may also have the seven alternative forms zīghàkpàzìghàkpà, zīakpàzìakpà, zīkpàzìkpà, sīghàrlàkpàsìghàrlàkpà, sīghàkpàsìghàkpà, sīakpàsìakpa, and sīkpàsìkpà. A few can even be inverted, as in the case of gu̍nkán or ka̍ngún, "lean".

Adverbs readily cluster into phonosemic "families", which are linked by a common root and a common basic meaning. Thus, from the root *wẹ*, "little" (as in the verb *wẹrlẹ*, "to be small", and the noun *ìsáàwẹ̀wẹ̀*, "peanut") we get the following seven adverbs:

1.	wẹ̄ẹ,	"gentle"	5.	wẹ̄lẹ̀wẹ̀lẹ̀,	"like a feather"
2.	wẹ̍ẹwẹ́ẹ,	"stealthy"	6.	wẹ̀kẹ̀ẹ́wẹ̀kẹ̀ẹ́,	"waddling"
3.	wẹ̍wẹ́wẹ́,	"whispering"	7.	wẹ̍'íwẹ́'íwẹ́'í,	"with short steps"
4.	wẹ̍wẹ́rhẹ́,	"shallow"			

Because of this extreme variability, adverbs are a lexeme-class in which innovation is far commoner and far more readily accepted than in any other. In fact, the author discovered a few years ago that all one needed to coin adverbs of his own was a small basic stock of adverbial roots and stems and a familiarity with six or eight of the commonest adverbial construction-patterns. And he was delighted to find that, of about 100 adverbs that he coined by systematic application of this principle, approximately one third were declared to be in actual use, another third to be novel but comprehensible, and only a third to be indecipherable. An example of a coinage from the first group is *fẹ̍rlẹ́fẹ́rlẹ́*, "completely" (cf. *fẹ̍ẹrlẹ́* and *fẹ̍fẹ́ẹfẹ́*, idem); from the second group, *ge̍erlé*, "shrill" (cf. *ge̍lété*, "high", and *go̍orló*, "loud"); and from the third group **ka̍ngókángó*, "gaunt" (cf. *go̍káan*, "tall and thin", and *ka̍ngúnkángún*, "emaciated").

But it is not only by virtue of their lexical variability and class productivity that adverbs are unique. Some adverbial infra-classes are unique in structure alone. Thus a ditonic like *Àkhúrlúkhùrlùkhúrlú*, "like a cripple in a hurry", may be called an archetypical adverb. For its seven syllables alone make it too long to be anything else but a noun or an adverb; and both its clitic prefix and its infixless stem-triplication patently remove it from the noun category.

Section 5: Verbs

Verbs are non-nominal, non-adverbial inflectables. In more positive terms, verbs are lexemes that inflect for person and aspect.

Structurally and phonically, verbs resemble particles and exclamatives in that they may consist of as little as a monosyllabic root with a superfix and that, when uncompounded, they may not consist of more than three syllables. (Although in theory a compound verb could have as many as nine syllables, in practice it never seems to have more than five.)

Gradationally, verbs resemble pronouns in that they exhibit exclusively grammatical tone and so must be classified as sub-phrases. (Because of the uniform predictability of Bini verb tone, we will here cite verbs in their toneless stem forms except when tone-pattern is our primary topic of discussion.)

Syntactically, verbs are unlike all other lexemes in that all constructions in which they occur with tone automatically constitute clauses (when bound) or predicants (when free).

Historically, verbs are clearly one of the most basic of lexeme-classes. While it may not be true, as Melzian apparently believes, that all other classes, including nouns, are derived from verbs, it is virtually certain that no verbs are derived from lexemes of other classes.

Semantically, verbs contrast with adverbs, which chiefly designate styles of behavior, with nouns, which chiefly designate objects, and with pronouns, which exclusively designate persons. Most verbs designate states, processes, and events.

The structure of verb simplices is illustrated in Table 14. The reason why we interpret *fuọfua*, "to be white", as having the canonical form of its root in the second rather than in the first syllable is that the root occurs in the second form in other lexemes, such as the nouns *ẹ́fùa*, "whiteness", and *ùfúa*, "white yam". (In the case of the allotethically stemmed verb *rieriẹ*, "to turn", we make the same interpretation because of the occurrence of the same form of the root in the verb *weriẹ*, idem. And in the case of the verb *hihiẹ*, "to upset", we make the same interpretation on the phonic grounds that *hiẹ* is more likely to have been assimilated to *hi* — by way of **hie* and **hii* — before the vowel *i* than is *hi* to have been assimilated to *hiẹ* either because of its final position or by the addition of an otherwise unknown morpheme *ẹ*, which, in any case, would have produced a dysmorphic verb.)

Borrowed verbs cause a classificatory problem as regards structural analysis. The subphrases *saba*, "to be able", and *tafia*, "to interfere", appear to fit on Table 14 as an assimilative affixative and a heterothetic biradical, respectively. And, from a strictly synchronic point of view, they should probably be so classified. Historically, however, it seems likely that the first verb comes from Spanish *saber* and second from English *interfere*, even though the resultant Bini verbs can scarcely be fitted into the European structural patterns.

Table 14: Verb Structure

formula	description	verb	meaning
R	radical	go	shout
RS	monosyllabic affixative	dee	come
	mono-consonantal affixative	ba'a	be difficult
	assimilative affixative	lǫghǫ	pain
	semi-assimilative affixative	gbalǫ	tie
RRu	autothetic biradical	titi	be renowned
RIR	allothetic biradical	fuǫfua	be white
RRh	heterothetic biradical	mose	be beautiful
RM	quasi-affixative dimorphemic	rla'e	go
	semi-affixative dimorphemic	kiza	be foolish
	intermediate dimorphemic	sikan	shake
	semi-biradical dimorphemic	rhobhię	insult
	quasi-biradical dimorphemic	wannięn	reply

The formula RM, which stands for root-plus-morpheme, is used for all verbs the taxonomic status of whose second stem-morpheme is in doubt. Of the five non-initial morphemes listed after RM, *-He* looks most like an affix and *-niẹn* least. But we cannot be sure of their status unless we find that, like the *-lọ* of *gbalọ*, they also occur as homosemic suffixes in many other verbs (such as *balọ*, "to hurt") or, like the *-se* or *mọse*, they also occur as homosemic roots in other lexemes (such as *òsé*, "beauty", *ẹ̀sé*, "goodness", or *ùsé*, "cooperation").

An equally graphic way to illustrate verb structure is by means of a pyramid of gradual constructional expansion, as follows:

1. wù, "die!"
2. wùló, "die repeatedly!"
3. ọ̀wùló, "he dies repeatedly"
4. ọ̀wùlóò, "he died repeatedly"

Here *wu* represents a minimal verb simplex form and *ọwuloo* a maximal.

Verb paradigms are more extensive than those of any other lexeme-class. If we restrict them exclusively to those form-series that involve non-derivational inflection, no verb paradigm will include more than 20 items -- less than twice the 11 items in a maximal pronoun paradigm. But if, as seems both syntactically and semantically more convenient, we include forms produced by derivational affixes, auxiliary co-verbs, and non-verbal lexemes occurring (and changing the verbs) in verb phrases, we get much more extensive paradigms. Since we are allowing non-inflectional processes to contribute to this paradigm, it seems preferable to refer to the process by which the paradigm is produced, not as conjugation, but (since modal pre-verbs play such a considerable role in it) as modulation.

In these terms, a complete Bini verb will exhibit thirteen modulatins — person, number, aspect, manner, mood, voice, status, case, rank, force, modality, character, and degree. There are four persons in Bini, but only two of each of the other modulations, all of which are illustrated in Table 15. For all the modulations except person there are only two alternatives. But there are four persons, which contrast as follows:

1. ife, "I get rich" 3. ọfe, "he gets rich"
2. ufe, "you get rich" 4. afe, "one gets rich"

ife may also be translated " am becoming rich". *ufe* may also be translated "thou gettest rich" but never "ye get rich". *ọfe* may also be translated "she gets rich" or "it gets rich". *afe* may also be translated "we get rich", "you get rich", "they get rich" or even "riches accumulate". The plural prefix *-i-* occurs only after the particle *èné* in such constructions as *èbhàannìfé*, "people who get rich". Since there are apparently no plural prefixes for the first and second person, it is possible to restructure the person-and-number paradigm in such a way as to produce 6 rather than only 5 full modulatory slots, as follows:

1. ife, "I get rich" 4. afe. "we get rich"
2. ufe, "thou gettest rich" 5. afe, "ye get rich"
3. ọfe, "he gets rich" 6. -ife, "they get rich"

If we do so restructure the paradigm, we of course reduce the number of persons from four to three.

There is a striking parallellism between the vowel prefixes of the verb and of the extended pronouns. Compare:

Table 15: Verb Modulation

modulation	alternatives	illustration	meaning
1. person	first	ife	I get rich
	fourth*	afe	one gets rich
2. number	singular	-ọfe	gets rich
	plural	-ife	get rich
3. aspect	progressive	ọfe	he gets rich
	perfective	ọfee	he is rich
4. manner	narrative	ufe	you get rich
	jussive	fe	get rich!
5. mood	asseverative	oghaafe	he will get rich
	conditional	oghaafe	if he gets rich
6. voice	terminative	ọfe	he escapes
	transitive	ọfe-	he escapes (someone)
7. status	positive	ọfe	he gets rich
	negative	ẹẹfe	he does not get rich
8. case	declarative	ọfe	he gets rich
	interrogative	ọfeerla	does he get rich?
9. rank	absolute	ọfe	he gets rich
	relative	enọọfe	who gets rich

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* There are also second and third person forms (see above).

Table 15 cont.

modulation	alternatives	illustration	meaning
10. force	lenitive	ọfe	he gets rich
	emphatic	ọọfe	he does get rich
11. modality	singulative	ọfi	he drops
	iterative	ọfilo	he drops repeatedly
12. character	stative	ọfe	he gets rich
	causative	ọfee-	he enriches (someone)
13. degree	mitific	ọbi	he moves
	intensive	ọbibi	he moves agitatedly

1. *ìbí*, "I move", with *ìmẹ̀n*, "I"
2. *ùbí*, "you move", with *ùwẹ̀*, "you"
3. *ọ̀bí*, "it moves", with *ọ̀rlé*, "it"
4. *-ìbí*, "they move", with *írlàn*, "they"

There is a similar parallellism between the third person singular-plural verb-prefix contrast and the equivalent contrast among pluralizing nouns, both haploid and verbal:

1. ọ̀fí, "she drops" vis-a-vis -ìfí, " they drop"
2. ọ̀rlúe, "co-wife", vis-a-vis ìrlúè, "co-wives"
3. ọ̀màankhè, "potter", vis-a-vis ìmàankhè, "potters"

The same parallellism holds for alternative forms of the third person singular vowel-prefix in relation to its plural:

1. ẹ̀rlé "he", vis-a-vis írlàn, "they"
2. ẹ̀ẹ́fí, "he does not drop", vis-a-vis -ìífí, "they do not drop"
3. ẹ́rlòghà'è, "young man", vis-a-vis írlòghà'è, "young men

Although the verb- prefix *a-* does not serve as a pronominal prefix, it assonates with the stem-vowel of both the plural pronouns *màn*, "we", *wà*, "ye", and *írlàn*, "they", and the impersonal pronoun *ghá* (with allolog *a*), "who?"

While a complete Bini verb has a theoretical complement of 16,384 forms in its paradigm, in actual fact even a relatively rich verb like *fe*, "to get rich", has only 128 forms; and a highly defective verb like the interrọgator *bhoo*, "where is?", has only 1 ! (The chief reason for the vacancy of so many theoretically available paradigmatic.

slots is that certain modulations are mutually exclusive. To be specific: there is no jussive, emphatic, or conditional perfective; no perfective, conditional, or relative jussive; no perfective, jussive, or relative conditional; no conditional, jussive or emphatic relative; no perfective emphatic; no terminative causative; and no causative terminative.) In order to fill all the modulational slots in Table 15, we have resorted to diagrammtic suppletion of *fe*, "to get rich", by the structurally equivalent verbs *fe*, "to escape", *fi*, "to drop", and *bi*, "to move".

Of all the modulations illustrated in Table 15, the subtlest is undoubtedly aspect. Generally speaking, the progressive aspect represents uncompleted action and the perfective, completed action. But at least eight other semantic contrasts between the two aspects may be descried, as follows:

	progressive		perfective
1.	present	vs.	past
2.	future	vs.	present
3.	inceptive	vs.	stative
4.	potential	vs.	actual
5.	contingent	vs.	certain
6.	indefinite	vs.	definite
7.	continuative	vs.	completive
8.	habitual	vs.	unique

Using the English verbs "do", "be", and "become" for maximal generality, we may translate these contrasts as follows:

1.	"does"	vs.	"did"
2.	"will do"	vs.	"does"
3.	"is becoming"	vs.	"is"
4.	"can do"	vs.	"does"
5.	"might have done"	vs.	"did"
6.	"could do"	vs.	"does do"
7.	"is doing"	vs.	"has done"
8.	"keeps doing"	vs.	"did"

Verb affixes are of three kinds: prefixes, suffixes, and superfixes. All of the well-established prefixes (namely, the four person-markers) we have already listed and discussed. In addition to these, there is a metaphonemic emphator A-, which turns lenitive verbs into emphatics. Although this form may be a true prefix, prepositive to the personal prefixes, it seems probable that it ought rather to be written HA- and construed as a monosyllabic particle analogous -- and perhaps also allologous -- to the emphatic particle rhA-, which occupies the same position and has the same meaning.

Verb-suffixes are of three functional types: inflectional, derivational, and extensional Inflectional suffixes change the aspect of a verb from progressive to perfective. The sole perfective suffix in Bini is -rle, with its variants -rlA (used after verbs ending in -ii, -ee, -uu, and -oo), -e (used after verbs ending in -e, -a, or -o preceded by consonant), and -A (used after verbs ending in -i, -e, -u, or -o preceded by a consonant), -rlen (used after verbs ending in -een, -aan, or oon), -rlAn (used after verbs ending in -iin or -uun), -en (used after verbs ending in -en, -an, or -on preceded by a consonant), or -An (used after verbs ending in -in or -un preceded by a consonant). Examples of all eight of these allomorphs are:

1.	ọ̀bàárlè,	"it shone"	5.	ọ̀khọ̀ọ́nrlẹ̀n,	"it has waged war"
2.	ọ̀bhòórlò,	"it is ripe"	6.	ọ̀zìínrlìn,	"it has endured"
3.	ọ̀gá'è	"she cokked"	7.	ọ̀ván'ẹ̀n,	"it squealed"
4.	ọ̀túù,	"he shouted"	8.	ọ̀súùn,	"it is powdery"

There are two derivative suffixes: the wholly assimilated causative suffix -HA and the semi-assimilated iterative suffix -lo. The causative suffix may have an older form *-rlA (as is suggested by the cognate Kukuruku suffix -lA) and a still older form *-rle (as is suggested by the contrast between the Bini verbs ka, "to become dry", and ka'e, "to render dry"). Its usual effect is, where a radical verb means "to do (something)", to change its meaning to "to make (someone) do (something)". Thus, while fe means "to become rich", its causative fee means "to make (someone) become rich" or "to enrich". In a few cases, such as that of miẹn, "to have", and miẹẹn, "to obtain", it appears to have a reflexive as well as a causative force (the semantic development here being, apparently, first "to cause someone to have" and then "to cause oneself to have").

The iterative suffix -lo indicates that there has been some sort of repetition involved in the event designated by the verb. This repetition may refer primarily to the subject (as in wu: wulo, "to die"), to the action (as in de:dele, "to fall"), or to the object (as in dẹ:dẹlẹ, "to buy"). The suffix -lo has five variants: -lọ (after verbs ending in a and ọ), -le (after verbs ending in e), -lẹ (after verbs ending in ẹ), -nọn (afer verbs ending in in, an, ọn, and un), and -nẹn (after verbs ending in ẹn). Examples of all six allomorphs are:

1.	filo,	"to shoot (many)"
2.	gbalọ,	"to tie (several"
3.	gbele,	"to kill (several)"
4.	dẹlẹ,	"to buy (various)"
5.	gbẹnnẹn,	"to tattoo"
6.	tọnnọn,	"to cut (several)"

There are also ten extensional suffixes, whose meaning, though it may once have been lexical, is now purely functional. These are: -HA, -wA, -hA, -lA, -rhA, -mA, -bhA, -ghA, -khA, and -kA. Verbs incorporating these semantically colorless suffixes are:

1.	buu,	"to decide"
2.	hẹwẹ,	"to breathe"
3.	winhin,	"to be aromatic"
4.	kpolo,	"to sweep"
5.	kharha,	"to drop"
6.	zama,	"to respect"
7.	kinbhin,	"to hit"
8.	zagha,	"to scatter"
9.	rlọkhọ,	"to be easy"
10.	suku,	"to be shy"

In addition to these known suffixes, we encounter a number of morphemes, in the second syllable of disyllabic verbs, whose taxonomic status is in doubt. Some are probably affixes, some probably roots, and the rest indeterminate. Five such morphemes, listed in the order of decreasing probability that they are suffixes, follow:

1.	rla-'e,	"to go"
2.	zi-ga,	"to try"
3.	rho-bhiẹ,	"to insult"
4.	rhi-khan,	"to solidify"
5.	do-mian,	"to writhe"

The tone-patterns of verbs are fixed by their structure. In utterance-final position, monovocalic verbs have the pattern L in the jussive, LT in the progressive, and LTL in the perfective; divocalic monosyllabic verbs have LL in the jussives, LLT in the progressive and LLTL in the perfective; and divocalic disyllabic verbs have LT in the jussive, LLT in the progressive, and LLTL in the perfective. Examples are:

1. a. bà, "watch!"
   b. ọ̀bá, "he watches"
   c. ọ̀bá'è, "he has watched"
2. a. bàa, "shine!"
   b. ọ̀bàá, " it shines"
   c. ọ̀bàárlè, "it shone"
3. a. bàbá, "grope!"
   b. ọ̀bàbá, "he is groping"
   c. ọ̀bàbá'è, "he groped"

(The intonation of the more compex modulations can be predicted in terms of the above patterns and the lexical tone of the particles *HÁ*, *èné*, and *Àrlà*. For the intonation of conditional constructions, see below under modals.)

Bini verbs are divisible into two sub-classes: simplices and compounds. And each of these is divisible in turn into complete and defective infra-classes. An example of a complete verb simplex is *fe*, "to escape".

Defective simplices are of two types: co-verbs and miscellanea. Co-verbs are verbs which may occur only with other verbs. They are of two sub-types: pre-verbs and after-verbs. And pre-verbs, finally, may be either modal or non-modal. Modals are pre-verbs which either, in combination with a core verb, produce one of the modulations listed in Table 16, or are positionally and functionally analogous to

Table 16: Modal Verbs

form	function	meaning
Hi	negative progressive	do not
ma(n)	negative perfective	did not
ghá	future	will do
ghá	processual	be doing
ghá	exhortative	go ahead and
ghà	suppositious	if
kpa	hypothetical	if
ghí	durative	longer
ghí	temporal	when
ghì	debitative	should
te	consuetudinal	used to
ke	sequential	after
ze	perseverative	soon
na(n)	simultaneative	just as
dá	inceptive	starting to
dà	autonomic	on one's own

Table 16 cont.

form	function	meaning
rla	vergive	be about to
yáa	temporal	when
yàá	vasive	go and
yee	repetitive	again
bhee	additive	also
doo	ventive	come and
doo	secretive	stealthily
rhee	concessive	although
kue	dubitative	may possibly
khian	vasive	be going to
rhérhé	eventuative	finally
rhírhí	constantive	always

such modulators. A list of modals is found in Table 16.

Most modals are monomorphemic, monosyllabic, and haplophonic. From a historical standpoint, this fact strongly suggests the interpretation that modals are pre-verbs on their way to becoming verbal prefixes. Such a historical interpretation then makes it easy to explain such coenophonic modals as nan, kue, and khian as pre-verbs which have begun the transition to affixative status too recently to undergo phonic reduction of any sort. Of all the modals, the one which has evidently come closest to becoming a full-fledged prefix is the verb Hi, "not", whose initial consonant is of unknown manner and position. But forms like gha and rla, which readily lose their consonants in accelerated speech, probably began the process of "de-verbalization" only slightly later.

A few modals are di-morphemic. Di-morphemics may be divided into two types -- monosyllabics like yee and disyllabics like rhirhi. Such modals, like the coenophonics in the preceding paragraph, may be presumed to have become "modalized" too recently for phonic reduction to have supervened.

Most modals lack both aspect and manner and exhibit fixed top tone. A few, however, undergo tone-changes of a modulational sort themselves. Thus, Hi takes jussive low tone after the exhortative gha. gha itself takes jussive low tone in conditional clauses, as does ghi in its debitative function. The di-morphemic verbs yaa and rhee exhibit the abnormal tone-sequence TT in the perfective, an analogy to which can be found only in disyllabic modals like rhirhi or in verbal nouns like *ùkpǫ́lǫ́ǫ̀bhę̀n*, "bigness" which jointly contrast with the tone sequence of free verbs such as *rhięrhię*, "to get warm", or *kpǫlǫ*, "to be big".

The only modal which may be replicated to form a homothetic verb compound is *gha*. The compound *gha gha* is used only in the result clause of conditional statements, where with the intonation TT it means "will be doing" and with LT, "would be doing".

Non-modal pre-verbs are verbs which occur only before free verbs. An example is the transitive defective *gi* (or *gu*), "to allow".

A special type of pre-verb, which might be called an inter-verb, occurs only between a modal and a free verb. An example is *he*, "yet", which occurs only after *man*, "not".

A heterothetic compound pre-verb which may occur only with jussive tone is *kèbhèe*, "and", which has a semantically linking function when placed between nouns. (That this form is a verb rather than a particle is made probable by the fact that the forms *ka*,and *bhee*,"again", may occur separately as pre-verb simplices.)

After-verbs are co-verbs that occur only after free verbs. Example are *rlua* (with allologs *ua*, *ą*, *rluan*, *uan*, and *an*), "completely"; *foo*, "completely"; and *bękun*, "(to act) in vain".

The after-verb *hiin*, "away", exhibits what appears to be the abnormal tone-sequence TL. But this may an accelerated-speech variant of hiinrlin, a normal perfective form of *hiin.

The only co-verb which can lose both its consonant and its vowel (retaining only its tone) is the after-verb nan, "to give". When proposed to the pronoun -Abhẹn, "me", it yields the tri-morphemic monosyllable mẹn, "give me". Of all Bini verbs, nan is phonically the most affix-like.

A rare type of heterothetic compound which, though it never occurs alone, may serve either as a pre-verb or an after-verb is ku gbẹ, "to join". We might term it a bi-positive co-verb.

Miscellaneal defective verbs are subphrases that lack one or more of the modulations listed in Table 17. Since few verbs exhibit more than about half of these modulations, this group is actually the largest category of verbs in the language. Miscellaneals are perhaps best listed in terms of the modulations which they lack, as in Table 17.

In addition to modulatory defectives, there are lexical defectives -- verbs which occur only with certain nouns. An example is so, "to be dark", which is used only with the subject nouns èbíèbí, "darkness", and orlunbhun, "avocado".

Verb compounds are divisible into three types: dilexic, trilexic, and teralexic. Dilexics, which contain only two verbs, may be either homothetic or heterothetic. And homothetics, finally, may be either transitive or intransitive in type. An example of a transitive

Table 17: Defective Verbs Listed in Terms of the Modulations they Lack

missing modulational alternative	verb	meaning
1. non-third person	nǫn	"is"
2. plural	nǫn	"is"
3. progressive	guę	"know"
4. perfective	ye	"be"
5. jussive	khin	"be"
6. conditional	nǫn	"is"
7. terminative	sę	"reach"
8. transitive	bi	"get dark"
9. negative	bhoo	"where is?"
10. interrogative	bhoo	"where is?"
11. relative	re	"be in"
12. emphatic	nǫn	"is"
13. iterative	ga	"cook"
14. causative	de	"fall"
15. intensive	ko	"gather"

homothetic dilexic is *ghee ghee*, "to see unexpectedly", from *ghee*, "to look". (It differs from an autothetically replicated verb stem like *gheghe*, "to patch up", both in its vowel pattern and in its ability to interpolate affixes between its two components.) An example of an intransitive homothetic dilexic is *baa baa*, "to be very difficult", from *ba'a* (in accelerated speech *baa*), "to be difficult".

Heterothetics too may be either transitive or intransitive. An example of a transitive heterothetic dilexic verb compound is *ya rlu*, "to use (something) to do (something)". An example of its intransitive equivalent is *da tu*, "to shout".

Heterothetic dilexics may also exhibit mixed voice -- either transitive-intransitive or intransitive-transitive. An example of the former is *ba ku*, "to miss". An example of the latter is *dia ke*, "to be near".

All trilexic verb compounds seem to be heterothetic. They vary only in voice, exhibiting the following common patterns (where t stands for transitive and i for intransitive):

1. tit: *mun zę nan*, "to feed"
2. tii: *fi gbe rlua*, "to shoot dead"
3. iit: *mun dia khęę*, "to wait for"
4. iii: *ya ku gbe*, "to agree"

Tetralexic verb compounds seem to be exclusively amphithetic in nature. An example of such a compound is *khian yo khian re*, "to go to and fro" (literally, "walk go, walk come").

Most of the verbs that seem to deviate from the patterns outlined above can be explained as constituting verb phrases, composed of a verb and a nominal. Examples are the trivocalic form *rọ́ọ̀ọ́*, "to be there", from *re*, "to be in", and *ọ̀rlé*, "it"; and the trisyllabic form *kàkàbọ́*, "to do properly", from the intensive form of the pre-verb *ka*, "to do first", and *àbọ́*, the archaic plural of *òbọ́*, "hand".

Occasionally, however, we encounter irregular verbs not so easily explained. One such is *tótàá*, "to sit", with perfective *tóta̍à*, and jussive *tótàa*. Yet even this form may be susceptible to interpretation as a trilexic phrase consisting of a verb *tA-*, a noun *-ótÀ-*, and a verb *-Ha*.

Over and above the regular modulations which we have already discussed, Bini verbs sometimes exhibit variations on a verbal "theme" which suggest that a radical verb linking the other verbs once existed but has since diappeared, leaving behind a "family" of cognate verbs. Families of this kind can have either two, three, or four members. An example of a two-member verb family is:

1. saa, "to burst"
2. salọ, "to burst in rapid succession"

An example of three-member verb family is:

1. ka, "to become dry"
2. ka'e, "to make dry"
3. kaka, "to become dry in large numbers"

And an example of a four-member verb family is:

1.	giaa,	"to cut"
2.	gialọ,	"to cut (many things)"
3.	giagha,	"to cut into small pieces"
4.	giagia,	"to cut into many pieces"

Paradigmatic suppletionis rare among Bini verbs. But one clear-cut example is the modal *Hi*, "doesn't" which is replaced in the perfective by the heterobasal modal *man*, "didn't". A debatable example is the verb *dee*, "to come", whose perfective form *re*, "came", may be a phonic variant of the base **de* from which *dee* is derived.

Before nominal objects, progressive verb forms undergo tonal changes. These, however, are better dealt with in Volume IV, under Phrases.

Section 6: Particles

Particles are uninflectable co-words. In their complete lack of paradigms, they resemble exclamatives. As far as lexical membership is concerned, they are the smallest lexeme-class in Bini. There are fewer than twenty particles in all, involving fewer than ten bases and fewer than five linear affixes. Yet their paucity of members is made up for by their functional versatility and frequency of occurrence.

Derivationally, many of them look suspiciously like defective verbs. Indeed, the line between a non-declarative verb compound like *kèvbè*, "and", and a [illegible] particle like *tabá*, "whether", is thin at best. Both are bound forms with invariable tones, showing clear etymological affinities with free verbs.

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Structurally, uncompounded particles are of only three types (where C mean "consonant" and V, "vowel"):

1. CV　　2. VCV　　3. CVCV

Gradationally, particles are either bound micro-words or bound compounds. None are free lexemes or subphrases. In this regard they are more similar to adverbs than to any other lexeme-class.

Syntactically, particles are attached either to nouns or to verbs. None occur in isolation or attached to lexemes of other classes. In this regard too they remind us of adverbs.

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Phonically, particles are exclusively haplophonic. In this regard they are closest to affixes and modal co-verbs and furthest from exclamatives.

Particles may be divided into two sub-classes: simple and compound. Simple particles are of three infra-classes: prepositive, interpositive, and postpositive. And prepositive particles, finally, may be either monosyllabic or disyllabic. Exampes of monosyllabic prepositives are the emphatic pre-verbal particle *tÁ* (with allologs *rhÁ* and *HÁ*) and the negative pre-numeral particle *rhÀ*, "not".

Disyllabic prepositives may be either prefixed or prefixless. Examples of prefixed prepositives are: *ábhé*, "the, these, those"; *èbheͯ*, "what, which, why, where, how; in, on, at; as, like; and"; *èdeͯ*, "who, what, which, when, where"; and *èné* (with allolog *ùnÁ*), "the, this, that, these, those; who, which; instead of". An example of a prefixless prepositive is the preverbal interrogative particle is *tàbÁ*, "whether".

Two interpositive particles are the inter-verbal *íghè*, "that", and the inter-nominal *iͯkAͯ*, "every".

The only postpositive particle in Bini is the interrogative postverbal *Àrlà*, "whether", which may also function as an internominal meaning "or".

Compound particles are divisible into homothetic and heterothetic types. And homothetics are divisible into continuous and discontinuous sub-types. The only continuous homothetic compound particle in Bini is the pre-nominal ènéèné, "the very". The two discontinuous homothetic compound particles are the inter-nominals i̽kA̽...i̽kA̽ and èbhe̽...èbhe̽, "every".

Examples of heterothetic compound particles are the prenominal ènáabhé, "all the", and the pre-verbals èbhéèné, "as if", and èdéghè, "whether".

The verbs with which the eight particle bases appear to be etymologically connected are listed in Table 18.

TABLE 18: Particles and the Verbs with which they may be Cognate

particle	meaning	cognate verb	meaning
1. èné	the	nǫn	be
2. èbhe̽	every	bhee	again
3. ède̽	what	de	fall
4. íghè	that	ghee	see
5. i̽kA̽	every	ke	follow
6. tàbÁ	whether	ta	guess
7. tàbÁ	whether	bi	concern
8. Àrlà	whether	rla	be going to

Section 7: Exclamatives

Exclamatives are a class of uninflectable lexemes that differ from particles both in their vastly greater number and in their structure, which is, more often than not, dysmorphic.

Derivationally, exclamatives show no obvious tie with any other lexeme-class. If one had to select a structurally similar class, it would probably be verbs. But, rather than reflecting any historical connection between the two classes, this fact may mean no more than that the predominant monosyllabicity of both classes gives them a superficial resemblance to each other.

Paradigmatically, the only element of possible significance is an emphatic suffix -HA which appears to be added to a few exclamatives, such as làhǫ́, "please" (which then becomes làhǫ́ǫ̀). But rather than being an evidence of inflection, the phonic — and the semantic — difference between forms like làhǫ́, "please", and làhǫ́ǫ̀, "please!", may merely reflect differences in speech tempo, the latter being the maximal form, of which the former is a phonically simpler and semantically more casual abridgement.

Gradationally, exclamatives occur on every level except that of subphrases. (They cannot be subphrases because no exclamative sub-class has predictable tone.)

Syntactically, exclamatives differ from adverbs and particles and resemble other lexeme-classes in that most of them are free rather than bound forms. Distributionally, most exclamatives occur either alone or immediately before longer utterances. In this respect they contrast most sharply with adverbs, which occur only after longer utterances.

Phonically, exclamatives resemble verbs and particles in being limited to a maximum length of three syllables. Phonotypically, they resemble adverbs in being frequently dysphonic. Dysphonic exclamatives, however, are for commoner than dyphonic adverbs.

Semantically as well as positionally, exclamatives resemble vocative and salutative nouns. But those exclamatives which may occur either utterance-initially or after verbs usually remind us more of adverbs than of nouns -- especially where stem-replication is involved.

Exclamatives may be divided into two sub-classes: euphonics and dysphonic. Euphonics conform to the canonical sound-patterns of the language, while dysphonics do not. Euphonics, in turn, are divisible into eumorphic and dysmorphic infra-classes, the former of which exhibits the canonical form-patterns of the language and the latter of which does not. Eumorphics may be either simple or compound. And simple eumophics, finally, may be either free or prepositive. An example of a free simple eumophic is the exclamative *tá*, "watch out!" An example of a prepositive eumorphic is the exclamative *lá*, "hail!" Prepositive exclamatives occur only before nouns.

Compound euphonic exclamatives may be either homothetic or heterothetic. Homothetic eumorphics, in turn, may be either triplicative or interdigitative. An example of a triplicative eumorphic is the exclamative *sìęnsìęnsìęn*, "so begins the tale". An example of an interdigitative eumorphic is the exclamative *khùaákhùaá*, which describes the squealing of an animal.

A dubious instance of a duplicative eumorphic is *rlérle̍*, "welcome", whose derivative tone indicates that its full form contains three morphemes and ought to be written **rléèrlé* or **rlérlèé*. If the added *e* in either case is a semi-elided allomorph of the morpheme *rle*, then this replicate form is unquestionably a triplicative exclamative like the one cited in the preceding paragraph. But if the *e* is an allomorph of the infix *-HA-*, then *rlérle̍* is a discontinuous duplicative. If, on the other hand, the additional *e* is an allomorph of a base not allologous with the base *rle*, then *rlérle̍* is an amphithetic compound.

Examples of common types of heterothetic compound exclamatives are *géè*, "hey!" *ìsę́*, "truly", and *óyìmàan*, "damn it!" (Since no exclamative affixes have been definitively established, it seems better to interpret the final *e* in *géè* as the allomorph of a base than as the allomorph of an affix.)

A particularly puzzling group of uninflectables is that represented by *kùrùrùrùrù*, which describes the sound of distant thunder. Positionally, suh forms could be either adverbs or exclamatives. In stem structure, they are amphithetic compounds. Phonically, they are highly echoic. Since they contain more than three syllables, it is perhaps better to call them adverbs, although it may well be that it is only our restrictive insistence on a three-syllable maximum for exclamative lexeme-length which prevents our recognizing them as full-fledged amphithetic eumorphic exclamatives.

Dysmorphic euphonics are exclamatives that lack consonants. They may be either isolative or postpositive. Examples of such isolatives are á, "oh!", ę́n, "yes", íìí, "the cry of a troll", and èéèé, "how extraordinary!" Of these, the first is dysmorphic only in its lack of a syllable-initial consonant for its root; the second is also abnormal in beginning with a non-oral vowel; and the last two are abnormal in containing more than two vowels in succession. All of these forms, of course, can be morphologically normalized by metaphonemic rewriting as Há, Hę́n, íHìí, and HèéHèé, respectively; but such recourse cannot but strike one as a tour de force.

The only postpositive exclamative is the common lexeme òó, usually abridged to o̍, which has vocative force and is usually used in calling to people some distance off. It may follow either nouns or other exclamatives.

Dysphonic exclamatives may be either dystactic or asyllabic. Dystactics contain normal Bini phonemes arranged in abnormal order. They may be either syllabic or asyllabic in type.

And syllabics may be either vocalic or non-vocalic in sub-type. An example of a vocalic dystactic is nyàmnyàm, a description of the sound made by someone chewing. An example of a non-vocalic syllabic dystactic is śs, "hush!"

Dysphonemic dysphonics are exclamatives whose phonemes are not normally found in Bini lexemes. They are of two types: xenophonic and paraphonic. Xenophonics contain phonemes normal to languages with which Bini is in frequent contact, while paraphonics contain phonemes not normal either to Bini or to those languages with which Bini is in regular contact. An example of a xenophonic exclamative is š́, "shoo!" An example of a paraphonic exclamtive is pf*, a labio-dental click expressing grief or contempt.

Section 8: Lexemes of Uncertain Class

No classification is air-tight. As we have already seen, lexemes fall between many classes in such a way as to make any class assignment seem somewhat arbitrary. All those uninflectables, for example, which may occur either in isolation or after verbal constructions are assignable with almost equal reason both to the adverb class and to the exclamative class.

Outside such ambiguous categories, however, there are individual lexemes which seem to fit no group-pattern. Seven of these follow:

1. *ghá*, "who?" Although, as we have seen, *ghá* behaves syntactically like a pronoun, its lack of inflection and its bound status make it seem more like a particle than like a nominal.

2. *rlìrlán* (with allologs *rlìán*, *nìán*, and *yàán*), "now". In form, *rlìrlán* seems more like a verb than like anything else. Its confinement to a post-verbal position, however, makes it seem syntactically more like an adverb. Yet it could also be a basive locative noun with temporal reference. The likelihood of its being a postpositive particle is slight, in view of its coenophonic syllabic structure. All things considered, the hypothesis that *rlìnrlán* (whose maximal form ought perhaps rather be written *rlìnrlán*) is an invariable after-verb is probably the least implausible one that we can propose for this puzzling co-word.

3. ìyáàrè, "safe return!" In function, ìyáàrè is an exclamative when used as a salutation to someone making a round-trip journey and a noun when used as a personal name. In derivation, ìyáàrè is probably a verb compound consisting of the narrative form ùya̽(á)-, "you go", and the jussive form (ù)rè, "may you come". (The vocalism of the prefix is not as unmanageable as it may at first appear, since we have a precedent for it in the co-log ìyÁ- of the numeral ùgíe, "twenty". But the aspectual forms of the two verbs involved are puzzling, both appearing to be perfective forms where we would expect progressives.) From a synchronic standpoint, we are probably well advised to regard ìyáàrè as being primarily and canonically an exclamative.

4. (ì)sìrà(á), "in the presence of". In form, ìsìràá is too long to be a pronoun but could belong to any other lexeme-class. In position, it is pre-nominal, and so could be a noun, a verb, or a particle. But if it is a noun, one would expect it to be preceded by some such particle as èbhe̽, "in". If it is a verb, its intonation is abnormal. And if it is a particle, it is the only heterothetic compound particle whose simplex components do not occur independently of the compound. Derivationally, ìsìràá appears to be related to the free verb si, "to place near". But the sequence -raa remains obscure in origin, as does the co-word ìsìràá in status.

5. hìéhìérlè, "at all". Although we earlier treated the homosemic form hìéhìé as an aberrant adverb, the morpheme -rle

looks suspiciously like a perfective verb suffix. On balance, it seems probable that both forms are homothetic compound after-verbs.

6. *lágbàlághòrlí*, "swiftly". In form, *lágbàlághòrlí* can only be a noun or adverb, since no other lexeme-class contains words of five syllables. Although the echoic character of the first three syllables of *lágbàlághòrlí* seems more adverbial than nominal, the irregular intonation virtually constrains us to treat it as a basive noun with locative distribution.

7. *súlèlé*, "on one's shoulders". In form, *súlèlé* is irregular for all lexeme-classes. Its post-verbal distribution would seem to suggest adverbial status for it. It is possible that it is a verb compound, although no verb **su* is known, and the semantics of *lele*, "to follow", seem inappropriate. The chances are, however, that *súlèlé* is not a lexeme at all but a phrase consisting of a verb *sA* (perhaps *si*,"to place upon"?) and a noun **-úlèlé*, "shoulders". If so, it ought rather to be treated in the chapter on Phrases in Volume III on Syntax.